

THE
DANGEROUS
VOYAGE

OF

Capt. *Thomas James,*

In his intended Discovery of a

NORTH WEST PASSAGE

INTO THE

SOUTH SEA:

WHEREIN

The Miseries indured, both Going, Wintering
and Returning, and the Rarities observ'd Philoso-
phical, Mathematical and Natural are related in
this JOURNAL of it, publish'd by the Special
Command of King CHARLES I.

To which is added,

A Map for Sailing in those Seas: Also divers Tables
of the Author's of the Variation of the Compass, &c.
With an Appendix concerning the Longitude, by Ma-
ster GELLIBRAND, Astronomy Reader at *Gresham* College.

The SECOND EDITION, Revised and Corrected.

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over-against the *Royal Exchange*. MDCCL.



TO THE
King's Most Excellent
MAJESTY.



Y being made Choice of
for this Imployment, and
my Undertaking in it en-
courag'd by Your graci-
ous Command ; I must account the
greatest Honour, that ever besel me.
Many a Storm, and Rock, and Mist,
and Wind, and Tide, and Sea, and
Mount of Ice, have I in this Discove-
ry encounter'd with ; many a Despair,
and Death had, almost, overwhelm'd
me, but still the Remembrance of the

The DEDICATION.

Account that I was to give of it to Your Majesty, put me in Heart again, made me not to give Way to my own Fears, or the Infirmities of Humanity. Your Majesty in my Employment, like a true Father of your Country, intended the Good of Your Subjects: And who is not bound to bless God for Your Royal Care in it? Had it been my Fortune to have done my Country this Service, as to have brought Home the News of this suppos'd and long sought for Passage, then would the Merchant have enjoy'd the Sweetness of the hoped for Profit, and the Subject have been sensible of the Benefit of Your Majesty's Royal Intentions in it. I have done my good Will in it, and tho' not brought Home that News; yet I shall here divulge those Observations, which may I hope become some Way beneficial to my Country. The Account of them, I here, with all Humility, offer unto Your most judicious Majesty. Your gracious Acceptance of what I had done, tho' I had not done what
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The DEDICATION.

was expected, emboldeneth me to do so; and since Your Majesty was pleased to signify Your Desires, of having a Brief of my Voyage presented unto You; that Word became a Command unto me, to draw this rude Abstract of it. Your Majesty will please to consider, That they were rough Elements, which I had to do withal; and will vouchsafe to pardon, if a Seaman's Stile be like what he most converseth with. Therefore, since Your Majesty hath been so gracious to me, as to appoint me Your Servant, I am now bound to vow you my Service, and it shall be my Honour to be commanded it, and shall account no Dangers too great, in going thro' it. These are the Resolutions of

Your Majesty's

most humble Subject and Servant,

THOMAS JAMES.

To my worthy Friend and Fellow-
Templer, Capt. JAMES.



HAVE perused your Journal. To commend it, were to dispraise it; Good Wine needs no Bush: Mos est fæda coloribus abdere: Yet this I must needs say, you have shew'd yourself to be a Master of your Art. The

Worth of a Warrior and Pilot is never discover-

* Miles in acie probatur
Gubernator in tempesta-
te dignoscitur.

ed but in Storms and Skir-
mishes *; and how many Skir-

mishes of Storms and Tempests

you have past, this Journal of yours doth sufficiently manifest: Go on then, as you have began well, and when any good Occasion is offer'd, second your good Beginnings with suitable Proceedings, and let not the cold Entertainment you have had in the frozen Seas, freeze up your Affections in undertaking other worthy Employments. So may you deserve, with Columbus, Drake, and Frobisher, to have the Remembrance of you smell sweetly in the Nostrils of Posterity, when you are in the Dust. Farewell,

Inner Temple.

THO. NASH.

Advertisement concerning this Edition.

THE universal good Character this Voyage has among the Judicious for its Integrity and Simplicity, and the great Scarcity of it (having been sold for 15 s. and a Guinea, in several Auctions) are sufficient Motives for the reprinting of it; likewise we hope it will prove useful and agreeable to the Publick.

OLIVE PAYNE,



PREPARATIONS

Made for the

VOYAGE



HAVING been many Years importun'd, by my honourable and worthy Friends, to undertake the Discovery of that Part of the World, which is commonly call'd, *The North West Passage* into the *South Sea*, and so to proceed to *Japan*, and to round the World to the Westward; being press'd forward withal, by the earnest Desire the King's most excellent Majesty had, to be satisfied thereof; I acquainted my good Friends, the Merchants of *Bristol*, with my Design, who freely offer'd to be at the Charge of furnishing Shipping for that Purpose. And being thus enabled, I address'd myself to the Honourable Sir *Thomas Roe*, Kt. (as the most learned, and the greatest Traveller by Sea or Land, this Day in *England*) who most graciously accepted of the Offer, and encourag'd me by many Favours in my Undertaking. Therefore with all Speed I contriv'd in my Mind, the best Model I could; whereby I might effect my Design. The Adventurers Money was instantly ready,

Preparations made for the Voyage.

dy, and put into a Treasurer's Hand, that there might be no Want of present Pay, for any Thing I thought necessary for the Voyage.

I was ever of Opinion, that this particular Action might be better effected by one Ship, than more; because in those icy Seas, so much subject to Fogs, they might be easily separated; I forbear to speak of Storms and other Accidents, as a Rendezvous in Discoveries, cannot surely or without much Hinderance be appointed; and that speedy Perseverance is the Life of such a Business: Therefore I resolv'd to have but one Ship, the Ship-boat, and a Shallop.

A great Ship, as by former Experience I had found, was unfit to be forc'd through the Ice; therefore I made Choice of a well condition'd, strong Ship, of the Burthen of 70 Tons; and in God and that only Ship, to put the Hope of my future Fortune.

The Ship being resolv'd upon, and that in less Time than Eighteen Months our Voyage could not be effected; I next consider'd how our Ship of 70 Tons in Bulk and Weight might be proportioned; in Victuals, and other Necessaries: This was all done, as soon as we could; and the Number of Men it would serve, at ordinary Allowance, for the foremention'd Time, was found to be, twenty two, a small Number to perform such a Business, yet double the Number sufficient to sail the Ship.

The Baker, Brewer, Butcher, and others, undertake their Offices upon their Credit; knowing it to be a general Business, and their utter undoing if they fail'd in the Performance, but truly they prov'd themselves Masters in their Arts; and have my Praise for their honest Care: In
them

Preparations made for the Voyage.

them consisted great Part of the Performance of the Voyage.

The Carpenters go in Hand with the Ship, to make her as strong and serviceable, as possibly they could.

Every Thing being duly proportion'd, and my small Number of Men known, I began to think of the Quality and Ability they should be of.

Voluntary Loiterers I at first disclaim'd, and publish'd I would have all unmarried, approved, able, and healthy Seamen: In a few Days an abundant Number presented themselves; furnished with Experience in marine Affairs. I first made Choice of a Boatswain; and some to work with him, for fitting the Rigging of the Ship; and as Things went forward shipp'd the Subordinate Crew; and all Things being perfectly ready, I shipp'd the Master's Mates; and last of all, the Master of my Ship, and my Lieutenant. The whole Company were Strangers to me, and to each other; but yet privately recommended by worthy Merchants, for their Ability and Fidelity. I was sought to by divers, that had been in Places of the chief Command in this Action formerly; and others also that had us'd the Northerly Icy Seas; but I utterly refus'd them all; and would by no Means have any with me that had been in the like Voyage, or Adventure, for some private Reasons unnecessary here to be related; keeping thus the Power in my own Hands I had all the Men to acknowledge immediate Dependance upon myself alone, both for Direction and disposing of all, as well of the Navigation, as all other Things whatsoever.

In

Preparations made for the Voyage.

In the mean Time, the better to strengthen my former Studies in this Business, I sought after *Journals, Charts, Discourses*, or whatever else might help my Understanding.

I set skilful Workmen to make me *Quadrants, Staves, Semicircles, &c.* as much, namely, as concern the Fabrick of them; not trusting to their mechanick Hands, to divide them; but had them divided by an ingenious Practitioner in the *Mathematicks*. I likewise had *Compass Needles* made after the most reasonable and truest Way that could be thought of; and by the First of *April*, every Thing was ready to be put together into our hopeful Ship.

In the mean Time, I made a Journey to *London*, to know His Majesty's further Pleasure, and to make known to him my Readiness; who calling for the foremention'd Honourable Knight, (Sir *Thomas Roe*,) I speedily after receiv'd His Majesty's Royal Letters, with Directions for proceeding in my Voyage, and my Discharge: Whereupon, I had forth the Ship into the Road, expecting a fair Wind to begin the Voyage.





A

V O Y A G E

For Discovering a

North West Passage

T O T H E

S O U T H S E A .



THE Second of *May* 1631, I took my Leave of the Worshipful Merchant Adventurers in this Action, in the City of *Bristol*: And being accompanied with the Rev. Mr. *Palmer*, and several of the Merchants and others, I repaired aboard. Where Mr. *Palmer* made a Sermon, exhorting us to continue brotherly Love amongst us, and to be bold to profess the true Christian Religion where-ever we should happen, in this our Peregrination. After they had receiv'd such Entertainment, as my Estate could afford them; they departed for *Bristol*. This Afternoon, I made a Review of all Things; Clothes, Necessaries, and Victuals.

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The 3d of *May* (after Prayer for good Success on our Endeavours) about three in the Afternoon we sail'd down the *Severn*, with little Wind, to the Westward of *Lundy*; where the Wind opposed us so strongly that we were obliged to anchor in *Lundy Road*, the 5th in the Evening; where we remain'd till the 8th in the Morning. Now hoping the Wind would favour us, we sail'd; but were forc'd to put into *Melford*, where we anchor'd about Midnight. Here we remain'd till the 17th in the Morning; when with the first fair Wind, we proceeded and doubled about Cape *Cleer* off *Ireland*. The 22d we were in Lat. 51 : 26, and the Blaskes did beat off us North-East, about twelves Leagues off: which Blaskes is in Lat. 52 : 4. Here I order'd the Course that should be kept, which was generally W. N. W. as the Wind would permit; which in this Course and Distance is very variable. The 4th of *June* we made the Land of *Greenland*; standing in with it to have Knowledge of the trending of it; it prov'd very foul Weather; and the next Day, by two in the Morning, we found ourselves encompassed with Ice, and endeavouring to clear ourselves of it (by Reason we could not see far about us) we were the more engag'd, and struck many fearful Blows against it: At length, we made fast to a great Piece, (it blowing very hard) and with Poles wrought Day and Night to keep off the Ice; in which Labour we broke all our Poles. The 6th, about two in the Morning, we were beset with many extraordinary great Pieces of Ice, that came upon us, as it were with Violence, and doubtless would have crush'd us to Pieces, if we had not let fall some Sail, which the Ship presently felt. In escaping that Danger, we ran against another great Piece,
that

that we doubted whether our Ship had not been stav'd to Pieces: But pumping, we found she made no Water. The former Pieces of Ice, had crush'd our Shallop all to Pieces; wherefore I caus'd our long Boat speedily to be had up from betwixt the Decks, and put over Board: By the Help whereof we recover'd our broken Shallop; and had her upon the Deck, intending to new build her. All this Day, we beat, and were beaten fearfully, amongst the Ice; it blowing a very Storm. In the Evening, we were inclosed among great Pieces, as high as our Poop: and some of the sharp blue Corners of them, reach'd quite under us. All these great Pieces, by Reason it was the Outside of the Ice, did heave and set, and so beat us, that it was wonderfull how the Ship could indure one Blow of it; *(but it was God's only Preservation of us, to whom be all Honour and Glory.)* In this Extremity, I made the Men to let fall, and make what Sail they could; and the Ship forc'd herself through it, though so tofs'd and beaten, as I think never Ship was. When we were clear, we tried the Pumps, and found them stanch: Upon which we went instantly to Prayer, *to praise God for his merciful Delivery of us.*

The 7th and 8th Days, we endeavour'd to double about Cape Farewell; being still pester'd with much Ice.

The 9th, we were in Lat. 59. 00. and we made Account the Cape Farewell bare off us due E. and some ten Leagues off. The Blakes in Ireland, is in Lat. 52. 4. and Cape Farewel in Lat. 59. 00. The Course is W. N. W. and the Distance about 410 Leagues: I know very well these Latitudes, Courses and Distance, do not exactly agree with mathematical Conclusions.

But thus we found it by Practice. The Variation of the Compass in Lat. 52. 30. and 30 Leagues to the Westward of *Ireland*, is about 3. 00. to the Eastward, in Lat. 57. 00. about 310 Leag. W. N. W. from the Blaskes, the Compass doth vary 9. 00. to the Westward : In Lat. 59. 15. some 40 Leagues to the Eastward, of Cape *Farewel*, the Variation is 14. 45. In this Course, I have been observant whether there were any Current that did set to the N. E. as some have written there did, and that as well in calm Weather, as otherwise ; but I could not perceive any. The Winds here are variable, and the Seas of an unsearchable Depth. We have not seen from *Ireland* hitherto, any Whales or other Fish ; the Weather, for the most part, was foggy.

The 10th, all the Morning, was very foul Weather, and a high-grown Sea ; altho' we had Ice about us, and some Pieces, as high as our Top-mast-head. Our long Boat which we were fain to tow at Stern, by reason we were building our Shallop on our Deck, broke away, and put us to some Trouble to recover her again. This we did, and brought her into the Ship, though very much bruised, and had two Men much hurt. By eight in the Evening, we were shot up as high as Cape *Desolation* ; for finding the Land to trend away N. and by E. we certainly knew it to be the Cape. It stands in Lat. 60. 00. and the Land from Cape *Farewel* to it, trends N. W. the Distance about 40 Leagues, the Course W. half a Point N. The Latitude of the South End of the Island, being 61. 20. some twelve Leagues to the Westward of Cape *Desolation*, the Variation is 16. 00. In this Course, we were much tormented, pestered and beaten with the Ice ; many Pieces being higher than our Top-mast-Head.

the SOUTH SEA.

Head. In our Way, we saw many Grampusses amongst the Ice; and it seemeth the Sea is full of them: The Weather for the most Part, a stinking Fog, and the Sea very black; which I conceive to be occasion'd by Reason of the Fog.

The 17th at Night, we heard the Track of the Shore, as we thought; but it prov'd to be the Rut against a Bank of Ice, that lay on the Shore. It made a hollow and hideous Noise, like an Overfall of Water; which made us to reason among ourselves concerning it, for we were not able to see about us, it being dark Night, and foggy. We stood off from it, till Break of Day, then in again: And about Four in the Morning we saw the Land above the Fog, which we knew to be the Island of *Resolution*. This last Night was so cold, that all our Rigg- ing and Sails were frozen. We endeavour'd to compass about the Southern Point of the Island; being so pester'd with the Ice, and thick Fog. Here runs a quick Tide into the Streight, but the Ebb is as strong as the Flood: The Fog was of such a piercing Nature, that it spoil'd all our Compasses, and made them flag, and so heavy withal that they would not traverse. Where- fore I would advise any, that shall sail this Way hereafter, to provide Compasses of *Moscow* Glass, or some other Matter, that will endure the Moi- sture of the Weather. As the Fog clear'd up, we could see the Entrance of the Streight to be full of Ice close throng'd together. Indeavou- ring to go forward, we were fast inclosed a- mong it, and so drove to and again with it, finding no Ground at 230 Fath. 4 Leag. from the Shore.

A VOYAGE to

The 20th in the Morning, we had got about the Southern Point of the Island; and the Wind came up at West, and drove both us and the Ice upon the Shore. When we were driven within 2 Leagues of the Shore, we came among the strongest Whirlings of the Sea, that possibly can be conceiv'd; there were divers great Pieces of Ice aground in 40 Fath. Water, and the Ebb coming out of the broken Grounds of the Island, among these Isles of Ice, made such a Distraction that we were carried round, sometimes close by the Rocks, and sometimes close by those high Pieces, that we were afraid they would fall upon us. We were so beaten likewise with the encountering of the Ice, that we were in a most desperate Estate: We made fast two great Pieces of Ice to our Side, with our Kedger and Grapnels, that drew 9 or 10 Fath. that so they might be aground before us, if so be we were driven on the Shore; but that Design fail'd us: And now from the Top seeing in among the Rocks, I sent the Boat, (for now we had finish'd her) to see if she could find some Place of Security, but she was no sooner parted, but she was inclosed, and driven to hale up on the Ice, or else she had been crush'd to Pieces. They ran her over the Ice from Piece to Piece, and in the mean while with the whirling and encountring of the Ice, the two Pieces brake away from our Sides, and carried away our Kedger and Grapnels: Then we made Signs to the Boat, to make all the Haste she could to us, which she perceiving did: The Men being with much Difficulty forc'd to hale her over many Pieces of Ice. In the mean time, we made some Sail, and got to that Piece of Ice, that had our Grapnel on it, which we again recover'd. By this Time, our Boat was come, and

we

we put a fresh Crew into her, and sent her to fetch our Kedger, which she endeavour'd with much Danger of Boat and Men. By this Time, the Ship was driven so near the Shore, that we could see the Rocks under us and about us; and we should be carried by the Whirlings of the Waters, close by the Points of Rocks, and then round about back again; and all this, notwithstanding the Sail we had aboard; that we expected continually when she would be beaten to Pieces. In this Extremity, I made them to open more Sail, and to force her in among the Rocks and broken Grounds, and where there was many great Pieces of Ice aground. We went over Rocks that had but 12 or 13 Feet Water on them; and so let fall an Anchor. This Anchor had never been able to wind up the Ship, but that, by good Fortune, the Ship ran against a great Piece of Ice that was aground. This Rush broke the main Knee of her Beak Head, and a Corner of it; tore away four of our main Shrouds, and an Anchor that we had at the Bow, fasten'd into it; and so stopt her Way, that she did wind up to her Anchor. We saw the sharp Rocks under us, and about us; and had but 15 Foot Water; being also in the Sides Way, where the Ice would drive upon us; our Boat we could not see; which made us doubt she had been crush'd to Pieces. In her, was the third Part of our Company; but by and by we see her come about a Point among the Rocks. She had recover'd our Kedger, which made us something joyful: With all Speed we laid out Hawfers to the Rocks, and every one did work to the best of his Strength, to warp her out of this dangerous Place, to the Rocks Sides; where we had 3 Fath. Water, and where under the Shelter of

a great Piece of Ice that was aground, which kept off the Ice, that otherwise would have driven upon us. Here we lay very well at the Ebb; but when the Flood came, we were assaulted with Pieces of Ice, that every half Hour put us into desperate Distress. We did work continually and extremely to keep off the Ice. At full Sea, our great Piece of Ice, which was our Buckler, was afloat; and do what we could, got away from us, and left us in imminent Danger, by Reason of the Ice that drove in upon us. But the Ebb being once made, this great Piece of Ice came again aground very favourable to us; and shelter'd us all the rest of the Ebb. All Night we wrought hard, to shift our Cables and Hawfers, and to make them fast aloft on the Rocks, that the Ice might the better pass under them. All Day and Night it snow'd hard, and blew a very Storm at West; which drove in all the Ice out of the Sea upon us. In working against the Violence of the Ice, the Flock of our Kedger was broken; two Arms of our Grapnels, and two Hawfers, our Shallop being again very much bruised; whereupon to work we go on all Hands to repair it.

This Tide, the Harbour was choak'd full of Ice; so that it seem'd firm and immoveable; but when the Ebb was made, it mov'd. Some great Pieces came aground, which alter'd the Course of the other Ice, and put us on the Rocks. Here, notwithstanding our utmost Endeavours, she settled upon a sharp Rock, about a Yard above the Main Mast; and as the Water ebb'd away, she hung after the Head, and held to the Offing. We made Cables and Hawfers aloft to her Masts, and so to the Rocks, straining them tough with our Tackles; but she as
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the Water ebb'd away, she was turn'd over, that we could not stand in her. Having now done all to the best of our Understandings, but to little Purpose, we went all upon a Piece of Ice and fell to Prayer; *beseeking God to be merciful unto us.* It wanted yet an Hour to Low Water, and the Tide wanted a Foot and half to ebb, to what it had ebb'd the last Tide. We were careful Observers of the Low Waters, and had Marks by Stones and other Things which we had set up, so that we could not be deceiv'd. The Ship was so turn'd over, that the Portless of the Fore Castle was in the Water, and we look'd every Minute when she would overset. Indeed at one Time, the Cables gave Way, and she sunk down half a Foot at that Slip; but unexpectedly it began to flow, and sensibly we perceiv'd the Water to rise apace, and the Ship withal. Then was our Sorrow turned to Joy, and we all fell on our Knees, *praising God for his Mercy*, in so miraculous a Deliverance.

As soon as she was freed from this Rock, we wrought hard to get her further off. All the Flood we were pretty quiet from the Ice, but when the Ebb was made, the Ice came all driving again upon us, which put us to great Extremity. We got as many Pieces between us and the Rocks as we could, to fence us from the Rocks. There came a great Piece upon our Quarter, which was above 300 of my Paces about, but it came aground. Thus did divers great Pieces besides, which was the Occasion, that this Tide the Harbour was quite choak'd up; so that a Man might go any Way over it, from Side to Side. When it was three Quarters Ebb, these great Pieces that came aground, began to break with a most terrible thundering Noise,

Noise, which put us in great Fear, that those about us would break us all to Pieces ; *but God preserved us.*

This Morning the Water veer'd to a lower Ebb then the last Tide it had done, by 2 Foot ; *whereby we saw God's Mercies apparent to us in our late Extremity.* That Flood, we had some Respite from our Labours ; but after full Sea, our Hopes ebb'd too. The great Piece that was by us, so stopp'd the Channel, that the Ice came all driving upon us ; so that now, undoubtedly, we thought we should have lost our Ship. To work thereupon we go, with Axes, Bars of Iron, and any Thing proper for such a Purpose, to break the Corners of the Ice, and to make Way for it to go from us. *It pleased God to give good Success* to our Labours, and we made Way for some, and fended off the rest, and got so much of the softer Sort of the Ice betwixt us and the Rocks that we were pretty secure. But at Low Water those Pieces that were aground, breaking, kept a most thundering Noise about us. This Day I went ashore, and built a great Beacon with Stones upon the highest Place of the Island, and put a Cross upon it, and nam'd the Harbour, *The Harbour of God's Providence.* In the Evening, the Harbour was fuller of Ice than ever it been since we came thither ; and the greater Pieces grounded, and stopp'd the rest, that none went out the Ebb, but the Ship lay, as if she had lain in a Bed of Ice.

The 23d in the Morning, with the Flood, the Ice drove up among the broken Grounds ; and with the Ebb drove all out (it being very calm) except one extraordinary great Piece, which coming aground not far from us, settled itself in such a Manner that we much fear'd it.

But

But there came no more great Ice after it : otherwise, we must have expected as great Danger, as at any Time heretofore. I took the Boat, and went ashore upon the Eastern Side, to see if I could find any Place freer from Danger than this unfortunate Place, where among the Rocks I descried a likely Place. From the Top of the Hill where I was, I could see the Ship. It was now almost Low Water, at which Instant the foremention'd Piece of Ice brake with a terrible Noise into four Pieces, which made me afraid it had spoil'd the Ship ; it being full half Mast high. I made what Haste I could to the Boat, and so to the Ship, to be satisfied, where I found all well, *God be thank'd*, for the Ice had broken from the Ship-ward. I instantly sent away the Boat to sound the Way to a Cove that I had found, which was a very dangerous Passage for the Boat. At her Return, we unmoor'd the Ship, and with what Speed possible warpt away from among this terrible Ice. We were not a Mile from them before they brake all to Pieces, and would surely have made us bear them Company, *but that God was more merciful to us*. We got about the Rocks, and so into this little Cove, which I had so newly discover'd. Here we made fast to the Rocks, and thought ourselves in indifferent Safety ; which being done, I went ashore again, to wander up and down, to see what I could discover. I found it all broken rocky Ground, and not so much as a Tree, Herb, or Grass upon it : Some Ponds of Water there were in it, which were not yet thaw'd, and therefore not ready for the Fowl : We did not find in the Snow any footing of Deer, or Bears, but Foxes we saw one or two,

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We found where the Savages had been, but it was long since. They had made five Hearths, and we found a few Firebrands about them, and some Heads of Foxes, and Bones of Foxes, with some Whale-bones. I could not conceive, to what Purpose they should come thither; for we could find none or very little Wood on the Shore Side, and no Fish at all; tho' we daily endeavour'd to take some: But it may be, the Season was not yet come. I nam'd this Cove by the Master's Name of my Ship, *Price's Cove*. The Latitude of it is 61. 24. the Variation. The Firebands and Chips which I spake of, had been cut with some Hatchet, or other good Instrument of Iron: From the Top of the Hills, we could see the Islands that are on the South Shore, commonly called, *Sir Thomas Button's Isles*: They did bear S. and by E. half a Point Easterly: Some 14 or 15 Leagues distant upon the Change-Day, it flows here Seven o'Clock and a half, and the Tide highest at most 3 Fathoms. The Flood comes from the Eastwards, and thither it returns. I have been observant from the Top of the Hills, whence I might descry the great Pieces of Ice, 2 or 3 Leagues from the Shore, drive to and again with the Flood and Ebb indifferently. Hence I collected that assuredly there is no Current sets in here, but that it is a mere Tide. Near the Shore, the Eddies whirl in twenty Manners, when the Ebb is made; which is, because it comes out of the broken Ground amongst the Ice that is aground near the Shore: Besides which Reason, there be divers Rocks lying under Water; on which you shall have now 30, then 12, and anon but 8, and then 20 Fathoms: And these Uncertainties, occasion such Distractions. I would there-
fore

fore advise no one to come too near those dangerous Shores, for Fear he lose his Ship, and so by Consequence all: The last Night, we took better Rest than we had done in ten Nights before.

And this Morning being the 24th, there sprung up a fair Gale of Wind at East; and after Prayer we unfasten'd our Ship, and came to Sail, steering betwixt great Pieces of Ice, that were aground in 40 Fathoms, and twice as high as our Top-mast Head.

We went forth of this Cove, upon the Flood, and had none of those Whirlings of the Waters, as we had at our going into it. We endeavour'd to gain the North Shore; kept ourselves within a League of the Shore of the *Island of Resolution*, where we had some clear Water to sail through. In the Offing, it was all thick throng'd together, as might be possible. By 12 o'Clock, we were fast inclosed, and notwithstanding it blew very hard at E. yet we could make no Way through it: But the hard Corners of the Ice grated us with that Violence, that I verily thought it would have grated the Planks from the Ship's Sides. Thus we continued in Torment, till the 26th Day, driving to and again in the Ice; not being able to see an Acre of Sea from Top-mast Head. This 26th was calm Sun-shine Weather, and we took the Latitude and Variation. The Latitude is , the Variation we founded, and had Ground at 140 Fath. small white Sand. I caused the Men to lay out some fishing Lines, but to no Purpose; for I could not perceive the Bait had been so much as touch'd. The Nights are very cold; so that our Rigging freezes; and fresh Ponds of
Water

Water stand upon the Ice, above half an Inch thick.

The 27th there sprung up a little Gale at S. E. and the Ice did something open. Hereupon we let fall our Fore-Sail, and forc'd the Ship through the Throng of Ice. In the Evening, the Wind came contrary, at W. N. W. and blew hard, which caus'd us to fasten to a great Piece, to which we remain'd moor'd til the 29th.

I am satisfy'd here is no Current, by many Experiments I have made. Namely, by making Marks on the Land; and noting our Drift to and again, with the Ebb and Flood, for many Days together; as well in calm Weather, as otherwise. By all these Experiments I found exactly, that the Tide was no stronger there than that betwixt *England* and *France*.

This Morning, there sprung up a fine Gale at E. and the Ice open'd something, so that we forc'd the Ship through it with her Fore-Sail. By 12 o'Clock, we were got into some open Water, with a fine Gale of Wind at East, and so clear Weather, that we could see the *Island of Resolution*. The N. End did bear off us E. N. E. some 12 Leagues off.

From this 29th, till the 5th of *July*, we fail'd continually through the Ice, with variable Winds and Fogs, and sometimes calm. The 5th at Noon, we had a good Observation, and were in Lat. 63 : 15, and then we saw *Salisbury Island*, bearing W. by N. some 7 Leag. off with much Ice betwixt it and us; to weather which we were driven to stand to the Northward. Soon after, we saw, *Prince Charles's Cape*, and *Mill Island*: And to N. N. W. (and indeed, round about us) the Sea most infinitely pester'd

pester'd with Ice. This griev'd me very much, for as I had determin'd to prosecute the Discovery to the N. Westward, I saw it was not possible this Year. We were moreover driven back again with contrary Winds, still closed and pestered with Ice; and with all the Perils and Dangers, incident to such Adventures; so that we thought a Thousand Times, that the Ship had been beaten to Pieces.

By the 15th Day of *July*, we were got betwixt *Digge's Island*, and *Nottingham's Island*; not being able to get more Northward. There for an Hour or two, we had some open Water.

But before I proceed further, it were not amiss in some Manner to describe the Streight, which begins at the *Island of Resolution*, and ends here at *Digge's Island*. If you go down into the Bay, the Streight is about 120 Leag. long, and trends W. N. W. and E. S. E. generally. In the Entrance, it is about 15 Leag. broad; and then on the Southward Side, is a great Bay. About the middest, it is likewise about 15 Leag. broad, and then the Land opens something wider; so that betwixt *Digge's Island*, and *Cape Charles*, it is about 20 Leag. broad. Betwixt which two stands *Salisbury Island*, and *Nottingham Island*. If it be clear Weather, you may see both the S. and the N. Shores: Ordinarily, the Depth in the Middle of the Streight, is 120 Fathoms, white Sand. A certain Tide runs in it, and no Current. The North Shore is the straightest and the clearest from Ice. Along the North Shore, you have many low small Islands; which cannot be seen far off from the Land, and in many Places, the Land makes as if it had small Sounds into it. The main

main Land on both Sides, is indifferent high Land. And so much for Discourse may suffice.

Being now convinc'd of the Impossibility of doing any Thing to the N. Westward, for the Reasons aforesaid: I gave Order to the Master of my Ship to steer away, W. S. W. to have a Sight of *Mansfield* Island, which the next Day by three o'Clock in the Afternoon, we had: having had so much dangerous foul Weather among the Ice, we struck more fearful Blows against it, than we had ever yet done. This was the first Day that we went to half Allowance of Bread on Flesh Days: and I order'd Things as sparingly as I could. Two of our Men complain likewise of Sickness, but soon afterward recover'd. In the Evening we came to an Anchor, and sent the Boat ashore to try the Tides. They brought me Word, that whilst the Boat was ashore, it flow'd about some 3 Foot, as we found by the Ship, and by the Ice; the Water at that Time came from the W. S. W. and that the highest Tides, so far as they could perceive, had not swell'd above 2 Fath. They found that the Savages had been upon it, by certain Fires which they found, and Heaps of Stones, Tracks of other Beasts, but Foxes they could not find. The Wind was so contrary, and the Weather so foggy, that we were fain to spend some Powder to recover our Boat again.

Next Morning being the 17th, the Wind came something favourable, and we weigh'd. The Shore being something clear of Ice, tho' very thick all to the Offing, we stood along it S. and S. by W. some 10 Leag. In the Afternoon, the Wind came contrary, and we came again to an Anchor, within a Mile of the Shore,
for

for to Sea-board was all thick Ice, and impassable. I went ashore myself, to be resolv'd of the Tide, and found whilst I was ashore, that it flow'd two Foot : And at that Time the Flood came from the S. W. by W. I doubted it was a half Tide, which afterwards I found to be true. I found where the Savages had been upon the Island ; but could find little or no Drift Wood on the Shore ; no Beasts on the Island, nor Fish in the Sea. It flows on the Change Day, about 11 o'Clock. We saw some Fowl on it ; whereof we kill'd one, and return'd aboard. This Island is very low Land ; little higher than a dry Sand-bank. It hath Ponds upon it of fresh Water, but no Grass ; and is utterly barren of all Goodness.

The 18th in the Morning, the Wind came something favourable ; we weigh'd and came to Sail ; for the Ice was all come about us. We endeavour'd to proceed to the Westward ; intending to fall with the Western Land, about the Latitude 63. 00. By 12 o'Clock, having been much pester'd, we were come to a firm Range of Ice ; *but it pleas'd God that the Wind larged*, and we stood away S. S. W. At Noon in Lat. 62. 00. by 4 in the Evening, having escap'd dangerous Blows, we were come, as we thought, into an open Sea, and joyfully steer'd away W. and W. by N. altho' that Joy was soon quell'd. For by 10 o'Clock at Night, we heard the Rut of the Ice ; and it grew a thick Fog, and very dark with it ; nevertheless we proceeded, and the nearer we came to it, the more hideous Noise it made.

By three in the Morning, the 19th, we were come to it, and as it clear'd a little, we could see the Ice ; which were as thick Rands of Ice,

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as any we had yet seen. These being impassable, and moreover the Wind at N. W. we stood along it, hoping to weather it to the Southward, but at last, we became so blinded with Fog, and so encompass'd with Ice, that we could go no further.

The 20th in the Morning, notwithstanding the Fog, we endeavour'd to get to the Westward; our Ship beating and knocking all this while most fearfully.

In this Wilfulness we continu'd till the 21st, when being fast among the Ice, I observ'd we were in Lat. 60. 33. and then looking what Damage our Ship might have receiv'd, we could perceive that below the Plate of Iron, which was before her Cut-water, she was all bruise'd and broken; the two Knees she had before, to strengthen her, spoil'd and torn; and many other Defects, which we could not by any Means come to mend. Notwithstanding all this, and the extraordinary thick Fog, that we could not see a Pistol shot about us, we proceeded with the Hazard of all.

Till the 27th, which was the first Time we had clear Weather to look about us: The Wind withal came up at South, and the Ice did open something; so that we made some Way thro' it to the Westward. In the Evening we were fast again, and could go no farther; the Wind veering from the South to the East, and blowing a fresh Gale. This occasion'd our Grief the more, that with a good Wind we could not go forward; putting therefore a Hawser upon a Piece of great Ice, to keep the Ship close to it, we patiently expected for better Fortune. Since we came from *Mansfield's* Island, our Depth was commonly 110 and 100 Fath. oozy Ground.

Ground. Now the Water begins to shallow ; for this present 27th driving fast to and again in the Ice, we have but 80 Fath. Ground as before.

The 28th and 29th, we were so fast inclos'd in the Ice, that notwithstanding we put aboard all the Sail that was at Yards ; and it blew a very hard Gale of Wind ; the Ship stirr'd no more than if she had been in a dry Dock. Hereupon we went all boldly out upon the Ice, to sport and recreate ourselves, letting her stand still ; under all her Sails. It was flat extraordinary large Ice ; the worst to deal withal that we had yet found. I measur'd some Pieces, which I found to be 1000 of my Paces long. This was the first Day that our Men began to murmur ; thinking it impossible to get either forwards or backwards. Some were of Opinion, that it was all such Ice, betwixt us and the Shore. Others, that the Bay was all cover'd over ; and that it was a Doubt whether we could get any Way, or to any Land, to winter in. The Nights were long, and every Night it freez'd so hard, that we could not sail among the Ice by Night ; nor in the thick foggy Weather. I comforted and encourag'd them, the best I could : and to put away those Thoughts, we drank a Health to his Majesty on the Ice ; not one Man in the Ship, and she still under all her Sails. I must confess, that all their Murmuring was not without Reason ; wherefore doubting that we should be frozen up in the Sea, I order'd that Fire should be made but once a Day, and that with but a certain Number of Shides, that the Steward should deliver to the Cook by Tale, the better to prolong our Fewel whatsoever should happen.

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The 30th we made some Way thro' the Ice ; we heaving the Ship with our Shoulders, and with Mawls and Crows of Iron, breaking the Corners of the Ice, to make Way. As we got forwards, the Water shoal'd apace ; so that I believ'd it to be some Island. At Noon, we observ'd thro' the Fog, with the Quadrant, upon a Piece of Ice, and were in Lat. 58. 54, our Depth 30 Fath. We put out Hooks, to try to catch some Fish, but to no Purpose ; for there is not any in this Bay.

The 31st, we labour'd as aforesaid, and got something forward. At Noon we were in Lat. 58. 40, our Depth 23 Fath. It was very thick hazy Weather, or else I think we should have seen the Land.

The 1st of *August*, the Wind came up at W. which drove us to the Eastward, where our Depth increas'd to 35 Fath. At Noon, by Observation with the Quadrant on the Ice, we were in Lat. 58. 45. At 6 o'Clock this Evening, we might perceive the Ice to heave and set a little, which was occasion'd by a swelling Sea, that came from S. W. This did comfort us very much, hoping shortly we should get out of the Ice.

The 2d, it blew hard at S. W. and yet we could not feel the foremention'd swelling Sea ; which did again quench the Hopes we had formerly conceiv'd.

The 3d, we saw a little open Water to the North-Westward, and felt a Sea from the West, which doth assure us, that there is an open Sea to the Westward.

The 5th, we saw the Sea clear, but could by no Means work ourselves to it with our Sails ; wherefore about 6 in the Evening, we let fall an
Anchor

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Anchor in 50 Fath. Water, and stood all with Poles and Oars to fend off the Ice, and let it pass to Leeward. We continu'd this Labour all Night.

In the Morning, the Wind came up at N.W. and we weigh'd with much Joy, as hoping now to get into an open Sea to the Southward. This by Noon we had done, and were in Lat. 58. 28. very free of Ice. The Wind did large upon us, so that we stood away N. W. to get up as high to the Northward as we could, and so to come coasting to the Southward. *We went to Prayer, and to give God Thanks for our Delivery out of the Ice.*

The 9th, being in Lat. 59. 40, we came again to the Ice, which lay very thick to the N. Since we came out of the Ice, our Depth increased to 110, and now decreas'd again: So that I think we approach'd towards the Shore.

The 10th prov'd very thick foggy Weather, the Wind contrary, and the Water shallowing apace, we came to an Anchor in 22 Fath.

The 11th in the Morning, we weighed, and made in for the Shore, and about Noon saw the Land, our Depth being 16 Fath. in Lat. 59. 40. The Land to the N. of us did trend N. by E. and so made a Point to the Southward, and trended away W. by S. which we follow'd, taking it for that Place, which was formerly call'd *Hubbert's Hope*. And so it prov'd indeed, but it is now hopeless.

Two or three Words now, concerning the Bay that we have past over. It is from *Digge's* Island, to this Western Land, in Latitude aforesaid, about 160 Leag. the Course W. S. W. the Variation

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The Tides set in the Middle of the Bay E. and W. as we have often tried by our Lead aground, but nearer the Shore, as they are forc'd by the Land. I am of Opinion, that in the Ocean, or in large Bays, the Tides naturally set E. and W. and that this gives little Hope of a Passage. The greatest Depth we had in the Bay, was 110 Fathoms, and so shoaling, as you approach to Land, we coasted round this foremention'd little Bay; which is some 18 Leag. deep in 8 and 6 Fath. and in the Bottom of it, we were two Fath. and a half Water, and saw the firm Land almost round about us. Then we proceeded to the Southward 6 and 7 Fath. Water, within Sight of the Breach of the Shore, keeping the Lead continually going, and in the Night we would come to an Anchor. This Night having little Wind, we came to an Anchor with our Kedger; but in weighing of him, we lost him, having no more aboard us.

The 12th, we were in Lat. 58. 46. some two Leag. from the Shore. The Variation is about 17 Deg.

The 13th in the Afternoon, it being something hazy, we saw some Breaches ahead us: our Depth was 9 and 10 Fath. and looffing to clear ourselves of them, we suddenly struck upon the Rocks, the Ship then being under our 2 Top-sails, Fore-sail and Sprit-sail, with a fresh Gale of Wind. In this fearful Accident, we struck all our Sails amain; *and it pleas'd God to send two or three good swelling Seas*, which heav'd us over the Rocks into 3 Fath. and presently into 3 Fath. and an half, where we chop'd to an Anchor, and tried the Pumps; but we found she made no Water, altho' she had three such terrible Blows, that we thought her Mast would have shiver'd

shiver'd to Pieces, and that she had been assuredly bulg'd. We hoist'd the Boat over-board, and double mann'd her, to go seek and found a Way, out of this perilous Place. She was no sooner gone, but there arose a Fog; so that we were oblig'd to spend some Powder, that she might hear whereabouts we were. The Wind dull'd something; otherwise, it had been doubtful whether she could ever have recover'd us again. After she had been absent 2 or 3 Hours she brought us Word, that it was all Rocks and Breaches round about us; and that withal she had found a Way, where there was not less than 2 Fath. and a half; and that afterwards the Water deepen'd. We presently weigh'd and follow'd the Boat and pass'd over two Ledges of Rocks, on which there was 14 Foot Water. Then it deepen'd to 3, 4, and so to 14 Fath. then it shoal'd again to 9. It being now Night, we came to an Anchor; where we rid indifferent well all the Night. In the Morning, the Wind came contrary; so that we could not go that Way we intended to clear ourselves: And therefore we went to work; to fit our Holds, to splice our Cables; and made ready 2 Shot, and so plac'd them in the Hold, that they might upon all Occasions run clear; the Ends of them being fasten'd to the Main Mast. We likewise look'd to our Anchors, and fitted our spare Ones. We got out our long Boat from betwixt the Decks, which was very broken and bruis'd. The Carpenter went to work to fit her; for I intended to tow the Shallop at Stern, and so to have the Boats ready at an Instant, either to lay out Anchors, or to be serviceable to what God should be pleas'd to try our Faith and Patience with; for in him was our only Trust and Hope. At Noon, in Lat. 57. 45. we could see

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the Land from the N. W. to the S. E. by E. with Rocks and Breaches ; and the Rocks that we came over dry above Water ; whereby I knew it flows here 2 Fath. at least. At Noon, I sent the Boat off to sound to the Eastward ; because the Water shallow'd when we came to an Anchor. She brought us Word, the shallowest Water she had been in, was 7 Fath. We intending thereupon to weigh, the Wind came Easterly ; so that we could not budge, but lay here the 14th all Night, with a stiff Gale of Wind.

The 15th in the Evening, our Cable rubb'd off ; by Reason of which perilous and sudden Accident, in which we had not Time to put a Buoy to it, we lost our Anchor, and were driven into 4 Fath. Water, before we could set our Sails. When we had done, we stood S. S. E. the Wind being at E. but the Water shallow'd to 3 Fath. Then we stood N. N. E. and it deepen'd by Degrees to 10 Fath. and because it grew dark, we came to an Anchor, and rid a good Strefs all Night.

The 16th in the Morning, the Wind came up at N. a fresh Gale ; and we weigh'd and came to Sail. By 9 o'Clock it grew to be a very Storm, and we turn'd to and again, in 10 Fath. Water. In the Evening, the Wind dull'd, and we stood S. W. to have a Sight of Port *Nelson* ; which Course we stood all Night, by the Stars, being in Lat. 57. 25, the Variation about 17 Degrees.

The 17th in the Morning we stood S. and our Depth decreas'd by Degrees to 8 Fath. At Noon we had good Observation, being in Latitude 57. 15. and we make Account that we are some 6 or 7 Leag. of the Southern Side of Port *Nelson*. Here the Colour of the Water changed,

ed, and was of a sandy red Colour. We stood in to 6 Fath. and could not see the Land from Top-mast-Head; so Night coming on, and it beginning to blow hard at E. by S. we stood off again into 10 and 1 Fath. where the Water was again of the Colour of the Sea.

The 18th, as the Wind and Weather favoured us, and the Storm was broken up, we stood in again S. and came again into thick puddlish Water; into 8, 7, and 6 Fath. and then off again; for it grew thick foggy Weather, keeping our Lead continually going, Night and Day.

The 19th, being fine clear Sun-shine Weather; we stood in again into the thick puddlish Water, into 8 Fath. where we came to an Anchor, to try the Tides; for from Top-Mast Head we could not see the Land. We were at Noon, by good Observation, in Lat. 57. 20. and the Tide set N. W. by W. and S. E. by E. It ran two Knots and an half in two Glasses; I perceiv'd, that there were nothing but Shoals to the Land. In the Afternoon it began to snuffle and blow; so that we had much ado to get up our Anchor. This being done, we stood E. S. E. but the Water shallow'd apace. Then we stood E. and deepen'd a little: In the Evening, the Wind came up at West; and then we stood E. S. E. into 10 and 8, and afterwards S. E. as our Depth did guide us by our Lead, and the Colour of the Water into 7 and 6 Fath.

The 20th at 6 in the Morinng, we saw the Land; it being a very low flat Land. We stood into 5 Fath. to make it the better, and so stood along it. At Noon we were in Lat. 57. 00. We nam'd it, *The Principality of South Wales*; and drank a Health in the best Liqueur we had to His Highness, Prince Charles, whom God preserve.

preserve. We stood along it, and came to a Point where it trends to the Southward, near to which Point there are two small Islands. In the Evening it was calm, and we came to an Anchor: The Tide fate as aforesaid. There we rid all that Night, and the next Day; by Reason the Wind was contrary. There went a chopping short Sea, and the Ship labour'd at it, exceedingly leaping in Sprit-Sail Yard, Fore-Castle, and all; for as yet we had not trimm'd her well, to ride. About 9 at Night, it was very dark, and it blew hard. We perceiv'd by the Lead the Ship drove, wherefore bringing the Cable to Capstang, to heave in our Cable, for we thought we had lost our Anchor, the Anchor hitch'd again, and upon the Chopping of a Sea, threw the Men from the Capstang. A small Rope in the Dark had gotten foul about the Cable, and about the Master's Leg too: *But with the Help of God he clear'd himself*, tho' not without fore bruising. The two Mates were hurt, the one in the Head, the other in the Arm. One of our lustiest Men was struck on the Breast with a Bar, that he lay sprawling for Life; another had his Head betwixt the Cable, and hardly escap'd. The Rest were flung where they were fore bruis'd; but our Gunner, an honest and diligent Man, had his Leg taken betwixt the Cable and the Capstang, which wrung off his Foot and tore all the Flesh off his Leg, and crush'd the Bone to Pieces, and sorely bruis'd his whole Body: In which miserable Manner he remain'd crying till we had recover'd ourselves, our Memory and Strengths to clear him. Whilst we were putting him and the rest down to the Chirurgeon; the Ship drove into shallow Water, which put us all in Fear, we being so sorely weaken'd

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weaken'd by this Blow, which had hurt eight of our Men. *It pleas'd God*, that the Anchor held again, and she rid it out all Night. By Midnight, the Chirurgeon had taken off the Gunner's Leg at the Gartering Place, and dress'd the others that were hurt and bruis'd; after which we comforted each other as well as we could.

The 22d, we weigh'd, and stood a little off into deeper Water; expecting a better Wind. Which in the Afternoon favour'd us. We stood in again for the Shore, and along it we proceeded: It is very shallow about 4 Leag. off, and full of Breaches.

The 23th at Noon, we were in Lat. 56. 28. In the Evening, the Wind came contrary; and we were fain to turn to and again. All this Month, the Wind was very variable, and continued not long upon one Point; yet it happened so, that we could get but little forward.

The 26th, there sprung up a fine Gale at W. but thick Weather; nevertheless we stood into 7 and 6 Fath. the Water very thick. At Noon, it clear'd; and we could see that we were in a little Bay: The Land being almost round about us. We stood out of it, and so along it, in Sight; till the 27th in the Morning, when we came to higher Land than any we had yet seen, since we came from *Nottingham* Island. We stood into it, and came to an Anchor in 5 Fathoms. I sent off the Boat, well mann'd and arm'd; with Order in Writing what they were to do: and a Charge to return again, before Sun-set: The Evening came, and no News of our Boat: We shot and made false Fires, but had no Answer; which did much perplex us, fearing there had some Disaster befallen her, thro' Care-

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Carelesness, and in her we should lose all. We aboard, at present, were not able to weigh our Anchor, nor sail the Ship. At last we saw a Fire upon the Shore, which made us the more doubtful, because they did not answer our Shot, nor false Fires with the like. We thought withal, that it had been the Savages, that did triumph in their Conquest. At length they came, all safe and well, and excus'd themselves, that upon their coming ashore, it ebb'd so suddenly, that a Bank of Sand was presently dry without them, as they could not come away, till that was cover'd again; and with that they pacified me: They reported, that there was great Store of Drift Wood, on the Shore; and a good Quantity growing on the Land. That they saw the Tracks of Deer and Bears; good Store of Fowl; of which they had kill'd some; but no Sign of People. That they pass'd over two little Rivers, and came to a third; which they could not pass: That it flow'd very near 3 Fath. sometimes, as appear'd by the Shore. That it was Low Water at 4 o'Clock; that the Flood came from the N. W. and that it flow'd half Tide; which both they and we had perceiv'd by the Ship. At Low Water, we had but 3 Fath. where we rid. The Wind began to blow hard at E. whereupon we weigh'd and stood to the Northward till Midnight: Then in again, and in the Morning we saw the Land; and then it began to blow hard, and as we stood off, it increas'd to a very Storm; so that at length we could not maintain a Pair of Courses; but tried under our main Course, all Day and Night: sometimes turning her Head, to the Landward, sometimes to the Offing.

The

The 29th in the Morning, we made Account we had driven back again, some 16 or 18 Leag. and in the Morning, as it clear'd, we saw a Ship to Leeward of us 3 or 4 Leag. so we made Sail, and bore up with her. She was then at Anchor in 13 Fath. It was his Majesty's Ship, commanded by Captain *Fox*.

I saluted him according to the Manner of the Sea, and receiv'd the like of him. So I stood in to see the Land, and thought to tack about, and keep Weather of him, and to send my Boat aboard of him; but the Wind shifted, so that for that Time I could not. In the Evening, I came to Weather of him, who presently weigh'd, and stood off with me till Midnight; and then we stood in again.

In the Morning, Capt. *Fox* and his Friends came aboard of me, where I entertain'd them in the best Manner I could, and with such fresh Meat as I had gotten from the Shore. I told him, that I had nam'd the Land, *The Principality of South Wales*. I shew'd him how far I had been to the Eastward, where I had landed, and in brief, I made known to him all the Dangers of this Coast, as far as I had been. He told me, he had been in Port *Nelson*, and had made but a cursory Discovery hitherto; and that he had not landed, nor had not many Times seen the Land. In the Evening, after I had given his Men some Necessaries, with Tobacco and other Things which they wanted, he departed aboard his Ship; and the next Morning stood away S. S. W. since which Time, I never saw him. The Wind something favouring me, I stood in for the Shore; and so proceeded along it in Sight.

This

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This Month of *August* ended with Snow and Hail; the Weather being as cold, as at any Time I have felt in *England*.

Sept. 1. We coasted along the Shore in 10 Fath. when it clear'd, in Sight of Land. At length the Water shallow'd to 6 and 5 Fath. and as it clear'd, we saw it all Breaches to Leeward; so we hull'd off, N. N. E. but still rais'd Land. By Night, we had much ado to get out of this dangerous Bay. At Midnight, the Wind came up at S. and so we took in our Sails, and let the Ship drive to the Northward into deeper Water. This Day was the first Time the Chirurgeon told me, that there were divers of the Men tainted with Sickness. At Noon, we were in Lat. 55. 12.

The 2d, we stood in again for the Shore, but as we came in to shallow Water, it began to blow; the Weather being winterly and foul, threatening a Storm; wherein we were not deceiv'd, for in standing off, we had a violent one. By Midnight it broke up; and the 3d in the Morning, we stood in again; and by 11 we saw it. Here we found the Land to trend S. S. E. and S. so that we knew, that we were at a Cape Land; and nam'd it, *Cape Henrietta Maria*; by her Majesty's Name; who had before nam'd our Ship. At Noon, we were in Lat. 55. 05, and that is the Height of the Cape.

From Port *Nelson* to this Cape, the Land trends generally E. S. E. but makes with Points and Bays; which in the Particulars doth alter it a Point, 2 or 3. The Distance is about 130 Leag. the Variation at this Cape taken by Amplitude is about 16 Degrees. A most shallow and perilous Coast, in which there is not one Harbour to be found.

The

The 3d Day in the Afternoon, we had a tearing Storm at N. which continu'd till Midnight, in extreme Violence.

The 4th in the Morning, the Storm being broke up, we stood in again, S. W. The Weather was very thick, and we founded continually; but by Noon it clear'd, and we saw the Land. Here it did trend S. by E. and the Tides did set along it, with a quick Motion. In the Evening, there came a great rolling Sea out of the N. N. E. and at 8 o'Clock it blew very hard at S. E. and by Reason of the Encounter of the Wind and this great Sea, the Sea was all in a Breach; and to make up a perfect Tempest, it did so lighten, snow, rain, and blow, all the Night long, that I was never in the like: We shipp'd many Seas, but one most dangerous; which rack'd us Fore and Aft; that I verily thought it had sunk the Ship; it struck her with such Violence. The Ship did labour most terribly in this Distraction of Wind and Waves; and we had much ado to keep all Things fast in the Hold, and betwixt Decks.

The 5th in the Morning, the Wind shifted S. W. but chang'd not his Condition; but continued in his old Anger and Fury. In the Afternoon, it shifted again to the N. W. and there shew'd his utmost Malice; and in that tearing Violence, that not I, nor any that were then with me, ever saw the Sea in such a Breach. Our Ship was so tormented, and did so labour; with taking it in on both Sides, and at both Ends, that we were in a most miserable Distress, in this so unknown a Place. At 8 o'Clock in the Evening, the Storm broke up, and we had some Quietness in the Night following; not one having slept one Wink in 30 Hours before. If
this

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this Storm had continu'd Easterly, as it was at first, *without God's Goodness we had all perish'd.*

The 6th, the Wind was at S. W. so that we could do no Good to the Westward. We spent the Time therefore, in trimming of our Ship; we brought all our Coals, which for the most Part was great Coal, aft; as we also did some other Things; and all to lighten her afore. Others pick'd our Bread; whereof there was much wet; for do what we could, we shipp'd Abundance of Water betwixt Decks, which ran into the Hold, and into our Bread-Room; for the Sea, indeed, so continually over-rack'd us, that we were like *Jonas* in the Whale's Belly: We overlook'd our Tacks and Shoots, with other Riggings of Strefs; because that henceforward, we were to look for no other but Winter Weather. This Evening our Boatswain, a painful Man, and one that had labour'd extremely these 2 or 3 Days, was very sick; swooning away 3 or 4 Times; insomuch that we thought verily, he would presently have died.

The 7th in the Morning, the Wind came up at S. W. and we stood away S. W. under all the Sail we could make. In this Course, we saw an Island and came close aboard it; and had 20 Fath. Water, which was some Comfort to us; for hitherto, we could not come at 4 or 5 Leag. to the Shore, at that Depth. This Island stands in 54. 10. The Afternoon we stood away S. W. and in the Evening had the Shallowing of the Western Shore, in 10, 8, and 7 Fath. but it was so thick, that we could not see the Land. It is about 14 Leag. betwixt this Island and the Main.

The 8th was thick, foggy, and calm; which so continu'd till the 9th in the Morning. The

Wind

Wind then coming up at S. S. W. though very foggy, we stood to the Eastward; keeping our Lead going continually. In the Evening, the Water shallow'd to 10 and 9 Fath. wherefore we stood off and on, all Night.

The 10th we made it, finding it an Island, of about 8 or 9 Leag. long. It stands in Latitude 53. 5. and about 15 Leag. from the Western Shore. The Part of it, that we coasted, trends W. N. W. I nam'd it my Lord *Weston's* Island: We stood still away to the Eastward; it being broken foggy Weather. In the Afternoon, we descried Land to the Eastward of us; which made like three Hills, or Hummocks: Towards them we sail, keeping our Lead still going; and very circumspect. At length we also saw Land to the Southward of us; whereupon we loof up, and now make for that; by Course as we had set it in the thick dark Fog. We came in among such low broken Grounds, Breaches, and Rocks, that we knew not which Way to turn us: *But God be thank'd* it was but little Wind, and so we came to an Anchor. Soon after it clear'd; at which Time we could see nothing but Sands, Rocks, and Breaches, round about us, that Way only excepted, which we came in. I sent presently the Boat to sound among the Shoals and Rocks, that if we should be put to Extremity, we might have some Knowledge which Way to go. This Night prov'd calm and fair Weather, and we rid quietly.

The 11th in the Morning, I went in the Boat ashore myself; and whilst I was on Land, I sent the Boat about among the broken Grounds, to sound. I found the Land utterly barren of all Goodness, yea of that which I thought easily to have found; which was Scurvy-grass, Sorrel, or

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some

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some Herb or other, to have refresh'd our sick People. I could not perceive, that the Tide flow'd here, ordinarily, above two Foot. There was much Drift Wood on the Shore, and some of it drove up very high, on the N. Side of the Island; whereby I judg'd that the Storms were very great at N. in the Winter. Thus I return'd aboard; and sent many of our sick Men to another Part of the Island, to see if they themselves could fortunately find any Relief for their Grief. At Noon, by good Observation, we were in Latitude 52. 45. In the Evening, our Men return'd comfortless; and then we weigh'd and stood to the Westward, coming to an Anchor under another Island, in 20 Fath.

The 12th in the Morning, it began to blow hard at S. E. which was partly of the Shore; and the Ship began to drive; it being soft oozy Ground. We heav'd in our Anchor thereupon, and came to Sail under two Courses. Whilst the most were busy in heaving out of Top-sails: Some, that should have had special Care of the Ship, ran her ashore upon the Rocks, out of mere Carelessness, in looking out and about, or heaving of the Lead, after they had seen the Land all Night long, and might even then have seen it, if they had not been blind with Self-conceit, and been enviously opposite in Opinion. The first Blow, struck me out of a deep Sleep, and I running out of my Cabbin, thought no other at first, but I had been waken'd, when I saw our Danger, to provide myself for another World.

After I had controul'd a little Passion in myself, and had check'd some bad Counfel that was given me, to revenge myself upon those that had committed this Error: I order'd what should be done.

done to get off these Rocks and Stones. First, we hal'd all our Sails aback; but that did no Good, but made her Beat the harder. Whereupon we struck all our Sails amain, and furl'd them up close, tearing down our Stern, to bring the Cable thro' the Cabbin to Capstang; and so laid out an Anchor to heave her altern. I made all the Water in Hold to be stav'd; and set some to the Pumps to pump it out, and intended to do the like with our Beer: Others I put to throw out all our Coals, which was soon and readily done. We coil'd out our Cables into our Long-Boat; all this While, the Ship beating so furiously that we saw some of the Sheathing swim by us. Then stood we, as many as could, to the Capstang; and heav'd with such a good Will, that the Cable broke, and we lost our Anchor. Out, with all Speed, therefore, we put another. We could not now perceive whether she leak'd or no; and that by Reason we were employ'd in pumping out the Water, which we had bulg'd in Hold, tho' we much doubted, but she had receiv'd her Death's Wound: Therefore we put into the Boat the Carpenter's Tools, a Barrel of Bread, a Barrel of Powder, six Muskets, with some Match; and a Tinder-Box, Fish, Hooks and Lines, Pitch and Ockam: And to be brief, whatever could be thought on in such an Extremity. All this we sent ashore, to prolong a miserable Life for a few Days. We were five Hours thus beating, in which Time she struck 100 Blows; insomuch that we thought every Stroke had been the last that it was possible she could have endur'd. The Water, we could not perceive, in all this Time, to flow any Thing at all. At length, *it pleas'd God*, she beat over all the Rocks, tho' yet we knew not whether she was

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stanch. Whereupon, to pumping we go on all Hands, till we made the Pumps suck ; and then we saw how much Water she made in a Glass. We found her to be very leaky ; but we went to Prayer, and *gave God Thanks it was no worse* ; and so fitted all Things again, and got further off and came to an Anchor. In the Evening, it began to blow very hard at W. S. W. which if it had done whilst we were on the Rocks, we had lost our Ship without any Redemption. With much ado, we weigh'd our Anchor, and let her drive to the Eastward among the broken Ground and Rocks ; the Boat going before, founding. At length, we came among Breaches ; and the Boat made Signs to us that there was no going further. Among the Rocks therefore we again came to an Anchor, where we rid all Night ; and where our Men which were tir'd out with extreme Labour, were indifferent well refresh'd. Here I first noted, that when the Wind was at S. it flow'd very little or no Water at all ; so that we could not bring our Ship aground to look to her : for we pump'd almost continually.

The 13th at Noon we weigh'd, and stood to the Westward : But in that Course, it was all broken Ground, Shoals, and sunken Rocks ; so that we wonder'd, how we came in among them in a thick Fog. Then we shap'd our Course to the Northward : And after some Consultation with my Associates, I resolv'd to get about this Land, and so to go down into the Bottom of *Hudson's Bay* ; and see if I could discover a Way into the River of *Canada* ; and if I fail'd of that, then to winter on the main Land ; where there is more Comfort to be expected, than among the Rocks, or Islands. We stood along
the

the Shore, in Sight of many Breaches. When it was Night, we stood under our Fore-Sail; the Lead still going. At last, the Water shallow'd upon us, to 10 Fath. and it began to blow hard. We tack'd about, and it deepen'd to 12 or 14 Fath. but by and by it shallow'd again to 8 Fath. Then we tack'd about again; and suddenly it shallow'd to 6 and 5 Fath. so we struck our Sail amain, and came to an Anchor; resolving to ride it for Life and Death. We rid all Night a great Stress; so that our Bitts did rise, and we thought they would have been torn to Pieces.

At Break of Day, the 14th, we were joyful Men; and when we could look about, we descried an Island some 2 Leag. off, at W. by N. and this was the Shoal that lay about it. Here ran a distracted, but yet a very quick Tide: Of which we taking the Opportunity, got up our Anchor, and stood N. W. to clear ourselves of this Shoal. In the Afternoon, the Wind came up at N. E. and we stood along the Eastern Shore, in Sight of a Multitude of Breaches. In the Evening, it began to blow a Storm, not Sail-worthy; and the Sea went very high, and was all in a Breach. Our Shallop, which we now tow'd at Stern, being moor'd with two Hawfers, was funk; and did spin by her Moorings, with her Keel up, 20 Times in an Hour. This made our Ship to hull very broad; so that the Sea did continually over-rake us; yet we endur'd it, and thought to recover her. All Night, the Storm continu'd with Violence, and with some Rain in the Morning; it then being very thick Weather. The Water shoal'd apace, with such an overgrown Sea withal, that a Sail was not to be endur'd; and what was worse, there was no trust-

ing to an Anchor. Now therefore we began to prepare ourselves, how to make a good End, of a miserable tormented Life. About Noon, as it clear'd up, we saw two Islands under our Lee; whereupon we bore up to them, and seeing an Opening betwixt them, we endeavour'd to get into it before Night; for that there was no Hope of us, if we continu'd out at Sea, that Night. Therefore come Life, come Death, we must run this Hazard. We found it to be a good Sound, where we rid all Night safely, and recover'd our Strengths again, which were much impair'd with continual Labour. But before we could get into this good Place, our Shallop broke away, being moor'd with 2 Hawfers, and we lost her to our great Grief: Thus now we had but the Ship-Boat, and she was all torn and bruis'd too. This Island was the same that we had formerly coasted the Western Side of; and had nam'd my Lord *Weston's* Island. Here we remain'd till the 19th, in which Time it did nothing but snow and blow extremely, insomuch that we durst not put our Boat overboard.

This 19th, the Wind shifed N. N. E. and we weigh'd and stood to the Southward, but by Noon the Wind came up at S. and so we came to an Anchor under another Island, on which I went ashore, and nam'd it, *The Earl of Bristol's Island*. The Carpenter wrought hard in repairing our Boat, whilst I wander'd up and down on this desert Island. I could not perceive, that ever there had been any Savages on it; and, in brief, we could find neither Fish, Fowl, nor Herb upon it; so that I return'd comfortless again. The Tides high about some 6 Foot; now the Wind is Northerly. The Flood comes from the N. and it flows half Tide: The full Sea,
this

this Day, was at One o'Clock. Here, seeing the Winds continue so Northerly, that we could not get about to go into *Hudson's Bay*; we consider'd again what was best to do, to look out for a wintering Place. Some advis'd me to go for Port *Nelson*; because we were certain that there was a Cove, where we might bring in our Ship. I lik'd not that Counsel; for that is a most dangerous Place, and it might be so long e're we could get thither, that we might be debarr'd by the Ice. Moreover, seeing it was so cold here, that every Night our Rigging froze; and sometimes in the Morning, we shovel'd away the Snow half a Foot thick off our Decks; and in that Latitude too: I thought it far worse than the other Place. I resolv'd thereupon, to stand again to the Southward, there to look for some little Creek, or Cove, for our Ship.

The 21st, the Wind came up at N. and we weigh'd, altho' it was a very thick Fog, and stood away S. W. to clear ourselves of the Shoals that were on the Point of this Island. This Island is in Lat. 53. 10. When we were clear, we steer'd away S. At Noon the Fog turn'd into Rain; but very thick Weather, and it thunder'd all the Afternoon, which made us fear a Storm; yet we ventur'd to proceed. In the Evening, the Wind increas'd, and blew hard; therefore we took in all our Sails, and let her drive to the Southward, heaving the Lead every Glas. Our Depth, when we took in our Sails, was 30 Fath. and it increas'd to 45. which was a great Comfort to us in the Dark. At Midnight, our Depth began suddenly to decrease; and as fast as the Lead could be heav'd, it shoal'd to 20 Fath. wherefore we chopt to an Anchor, and trimm'd our Ship Aft, to mount to the Sea, and fitted all

Things to ride it out. There was no Need to bid our Men watch; not one of them put his Eyes together all Night long. We rid it out well all the Night, altho' the Sea went very lofty; and it blew very hard.

The 22d in the Morning, when we could look about us, we saw an Island under our Lee some Leagues off; all being Shoals and Breaches betwixt us and it. At Noon, with the Help of the Windward Tide, we attempted to heave up our Anchor, altho' the Sea went very lofty. Joining all our Strengths therefore, with our best Skills, *God be thank'd*, we had it up; but before we could set our Sails, we were driven into 9 Fathoms. Indeavouring, thereupon, to double a Point, to get under the Lee of this Island; the Water shoal'd to 7, 6, and 5 Fath. but when we were about, it deepen'd again, and we came to an Anchor in a very good Place; and it was very good for us, that we did; for the Wind increas'd to a very Storm. Here we rid well all Night, took good Rest, and recover'd our spent Strengths again. The last Night, and this Morning, it snow'd and hail'd, and was very cold; nevertheless I took the Boat and went ashore to look for some Creek, or Cove, to have in our Ship; for she was very leaky, and the Company become sickly and weak, with much pumping, and extreme Labour. This Island, when we came to the Shore, was nothing but Ledges of Rocks and Banks of Sand; and there was a very great Surf on them. Nevertheless I made them row thro' it, and ashore I got with two more, and made them row off without the Breaches, and there to come to an Anchor and stay for me. I made what Speed I could to the Top of a Hill, to discover about; but could not see

fee what we look'd for : And because it began to blow hard, I made haste towards the Boat again. I found that it had ebb'd so low, that the Boat could not by any Means come near the Shore for me ; so that we were forc'd to wade through the Surf and Breaches to her ; in which some took such a Cold, that they complain'd of it to their dying Day. But now it began to blow hard, so that we could not get but little to Windward toward our Ship ; for the Wind was shifted since we went ashore, and return to the Shore we could not, by Reason of the Surf. Well : we row for Life, they, in the Ship, let out a Buoy by a long Warp ; and by *God's Assistance* we got to it, and so hal'd up to the Ship, where we were well welcom'd, and we all rejoiced together. This was a Premonition to us, to be careful how we sent off the Boat ; for that it was Winter Weather already. I nam'd this Island, Sir *Thomas Roe's* Island. It is full of small Wood, but in other Benefits not very rich, and stands in Lat. 52. 10. At Noon, we weigh'd ; seeing an Island that bare S. S. E. of us, some 4 Leag. off, which was the highest Land we had yet seen in this Bay ; but as we came near it, it suddenly shoal'd to 6, 5. and 4 Fathoms. Wherefore we struck our Sails amain, and chopt to an Anchor ; but it was very foul Ground, and when the Ship was winded up, we had but three Fath. at her Stern. As it clear'd, we could see the Breaches all along under our Lee ; holding it safe therefore to stay long here ; we settled every Thing in Order, for the Ship to fall the right Way. We had up our Anchor, got into deeper Water, and stood over again for Sir *Thomas Roe's* Island, which by Night we brought in the Wind of us ; some 2 Leag. off, which did well shelter us.

us. The Tides run very quick here among these Shoals, and their Times of running Ebb, or Flood, be very uncertain: Their Currents are likewise so distracted, that in the Night there is no sailing by the Compass; therefore we were fain to seek every Night some new Place of Security to come to an Anchor.

The 24th, in the Morning, it lower'd, and threaten'd a Storm, which made us, with the Windward Tide, weigh to get nearer under the Island. It was very thick foggy Weather, and as we stood to the N. Eastward, we came to very uncertain Depths: At one Cast, 20 Fath. the next 7, then 10, 5, 8, and 3; and coming to the other Tack, we were worse than we were before, the Currents making a Fool of our best Judgments, in the thick Fog when we could see no Landmarks. *It pleas'd God*, that we got clear of them; and endeavour'd to get under the Lee of the Island. This being not able to do, we were oblig'd to come to an Anchor in 35 Fath. some 2 Leag. off the Shore: All this Afternoon, and indeed all Night too, it snow'd and hail'd, and was very cold.

The 25th, we weigh'd, and thought to get to the Eastward; but as we tack'd to and again, the Wind shifted so in our Teeth, that it put us within a Quarter of a Mile of the very Shore; where we chopt to an Anchor, and rid it out for Life and Death. Such Miseries as these, we endur'd among the Shoals and broken Grounds; or rather more desperate than I have related, (very unpleasant perchance to be read) with Snow, Hail, and stormy Weather, and colder than ever I felt in *England* in my Life. Our Sheet-Anchors was down twice or thrice in a Day, which extreme Pains made a great Part of our Company

ny sickly. All this lasted with us, untill the 30th of this Month *September*, which we thought would have put an End to our Miseries; for now we were driven among Rocks, Shoals, Overfalls, and Breaches round about us; that which Way to turn, we knew not; but there rid among them, in Extremity of Distress. All these Perils, made a most hideous and terrible Noise, in the Night Season.

The 1st of *October* was indifferent fair Weather; and with a Windward Tide, out went our Boat, to sound a Channel to help us out of this dangerous Place. The Boat, within two Hours return'd, and told us, how she had been a Way where there were not less than 10 Fath. We presently, thereupon, weigh'd, but found it otherwise; and came among many strange Races, and Overfalls, upon which there went a very great and breaking Sea: As we proceeded, the Water shoal'd to 6 Fath. Well! there was no Remedy, we must go forward; seeing there neither was any Riding; and as little Hope to turn any Way with a Sail, but that there appear'd present Death in it. *It pleas'd God so to direct us*, that we got thro' it; having no less than five several, and all very ancient Depths. The Water, sometimes deepen'd to 20 Fath. then upon a Sudden, it shoal'd to 7, 6, and 5 Fath. so we struck all our Sails amain, and chopt to an Anchor, where we rid till Midnight, for Life and Death; it blowing a merciless Gale of Wind, and the Sea going very lofty, and all in a Breach. The Ground was foul Ground too, infomuch that we doubted our Cable every Minute.

The 2d, in the Morning, was little Wind: Wherefore taking the Opportunity of the Tide, the Boat went forth to sound; which returning
again

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again in two Hours, told us, how they had founded about that Shoal, and had found a Place of some Safety to ride in; and had been in no less Water than 5 Fath. We weigh'd, and found our Cable gall'd in two Places; which had soon fail'd us, if the foul Weather had continu'd. We stood the same Way that the Boat directed us; but it prov'd so calm, that we came to an Anchor in 18 Fath. I took the Boat, and went ashore on an Island, that was to the Southward of us; which I nam'd, *The Earl of Danby's Island*. From the highest Place in it, I could see all broken Grounds and Shoals to the Southward; and rather worse, than any Thing better, than that which I had been in. I found that the Savages had been upon it, and that it was full of Wood. I made Haste to the Boat to sound the Bay, for Fear of Shoals and funken Rocks; but found it indifferent Good. Toward the Evening, it began to blow hard; wherefore we made towards the Ship. She put forth a Buoy and a Warp; and we rowing for Life to recover her, were put to Leeward of her; but by getting hold of the Warp, we hal'd up to her. The Boat we left half full of Water; ourselves being as wet as drown'd Rats; and it made us the more rejoice, that we had escap'd this great Danger. All Night, we had a very hard Rode-steed, it blowing a most violent Gale of Wind, with Snow and Hail.

The 3d about Noon, the Wind dull'd; and we had up our Anchor, standing in further into the Bay into 4 Fath. and half Water. Here we came again to an Anchor, with our second Anchor; for many of our Men are now sick, and the rest so weaken'd, that we can hardly weigh our Sheet-Anchor; I took the Boat, and went
presently

presently ashore to see what Comfort I could find. This was the first Time, that I put Foot on this Island; which was the same that we did after winter upon. I found the Tracks of Deer, and saw some Fowl; but that which rejoic'd me most, was, that I saw an Opening into the Land, as if it had been a River. To it we make with all Speed, but found it to be barr'd; and not 2 Foot Water, at full Sea, on the Bar; and yet within, a most excellent fine Harbour, having 5 Fath. Water. In the Evening, I return'd aboard, bringing little Comfort for our sick Men, more than Hopes.

The 4th, it did snow and blow very hard; yet I got ashore, and appointed the Boat to go to another Place, (which made like a River,) and to sound it. In the mean Time, I went with four more, some 4, or 5 Miles up into the Country, but could find no Relief all that Way for our Sick, but a few Berries only. After we had well wearied ourselves in the troublesome Woods, I return'd to the Place I had appointed the Boat to tarry for me; where at my coming I still found her, she having not been where I had order'd her; for it had blown such a fierce Gale of Wind, that she could not row to Windward. Thus we return'd aboard, with no good News. It continu'd foul Weather, with Snow and Hail, and extreme Cold, till the 6th, when, with a favouring Wind, we stood in nearer to the Shore, and here moor'd the Ship.

The 7th, it snow'd all Day; so that we were fain to clear it off the Decks with Shovels; and it blew a very Storm withal. It continu'd snowing, and very cold Weather, and it froze so, that all the Bows of the Ship, with her Beak-Head,

Head, was all Ice : About the Cable, also, was Ice as big as a Man's Middle. The Bows of the Boat were likewise frozen half a Foot thick, so that we were fain to hew and beat it off. The Sun shin'd very clear, and we tore the Topails out of the Tops, which were hard frozen in them, into a Lump ; so that there they hung a Sunning all Day, in a very Lump ; the Sun not having Power to thaw one Drop of them. After the Boat was fitted, we row'd towards the Shore ; but could not come near the Place where we were used to land, for that it was all thicken'd Water with the Snow, that had fallen upon the Sands, that are dry at Low Water. This made it so difficult to row, that we could not get through it with 4 Oars, yet something higher to the Westward, we got ashore. Seeing now the Winter to come thus extremely on upon us, and that we had very little Wood aboard, I made them fill the Boat, and went aboard, and sent the Carpenter and others to cut Wood ; others to carry it to the Water Side ; whilst the Boat brought it aboard, for I doubted, that we were likely to be debarr'd the Shore, and that we should not go to and again with the Boat. It was miserable and cold already aboard the Ship, every Thing froze in the Hold, and by the Fire Side : Seeing therefore that we could no longer make Use of our Sails, which are the Wings of a Ship, it rais'd many Doubts in our Minds, that here we must stay and winter. After we had brought so much Wood aboard, as we could conveniently stow, and enough as, I thought, would have lasted 2 or 3 Months. The sick Men desir'd, that some little House, or Hovel, might be built ashore, whereby they might be the better shelter'd, to recover their Healths, I took the Carpenter, and others

others, whom I thought fit for such a Purpose, and chusing out a Place, they went immediately to work upon it. In the mean Time, I accompanied with some others wander'd up and down in the Woods, to see if we could discover any Signs of Savages, that so we might the better provide for our Safeties, against them. We found no Appearance that there was any on this Island, nor near unto it: The Snow, by this Time, was half Leg high; and stalking thro' it, we returned comfortless to our Companions, who had all this Time wrought well upon our House. They aboard the Ship, took down our Topsails the mean while, and made a great Fire upon the Hearth in the Hatch Way; so that having well thaw'd them, they folded them up, and put them betwixt Decks, that if we had any Weather, they might bring them again to Yard: Thus in the Evening we return'd aboard.

The 12th, we took our Main Sail from the Yard, which was hard frozen to it, and carried it ashore, to cover our House withal; being first fain to thaw it by a great Fire: By Night they had cover'd it, and had almost hedg'd it about; and the Six Builders desir'd to lie in it ashore that Night, which I condescended unto, having first fitted them with Muskets and other Furniture: and a Charge to keep good Watch all Night. Moreover, they had ashore two Greyhounds, (a Dog and a Bitch) which I had brought out of *England*, to kill us some Deer, if happily we could find any.

By the 13th at Night, our House was ready, and our Six Builders desir'd they might travel up into the Country to see what they could discover.

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The 14th, betimes in the Morning, being fitted with Munition, and their Order to keep together, but especially to seek out some Creek, or Cove, for the Ship, they departed. We aboard took down our two Top-masts, and their Rigging; making Account, if we remov'd, to make Use of our Foresail and Mizzen.

The 15th, in the Evening, our Hunters return'd very weary, and brought with them a small, lean Deer, in four Quarters; which rejoic'd us all, hoping we should have had more of them, to refresh our sick Men withal. They reported, that they had wander'd above 20 Miles, and had brought this Deer above 12 Miles, and that they had seen 9 or 10 more. The last Night they had a very cold Lodging in the Woods, and so it appear'd, for they look'd all almost starv'd, nor could they recover themselves in 3 or 4 Days after. They saw no Sign of Savages, nor of any ravening wild Beasts, nor yet any Hope of Harbour.

The 11th, my Lieutenant, and 5 more, desir'd they might try their Fortunes in travelling about the Island. But they had far worse Luck than the others, altho' they endur'd all Night, and had wander'd very far in the Snow, (which was now very deep) and return'd comfortless and miserably disabled with the Coldness. But what was worse than all this, they had lost one of their Company, *John Barton*; namely, our Gunner's Mate; who being very weary, merely to save the going about, had attempted to go over a Pond that was a Quarter of a Mile over; where, when he was in the very Middle, the Ice brake and closed upon him, and we never saw him more. Considering these Disasters, I resolv'd to fish no more with a golden Hook, for
Fear,

Fear, I weaken'd myself more with one Hunting, than 20 such dear Deers could do me Good. Being now assur'd, that there were no Savages upon the Island, nor yet about us on the other Islands; no, nor on the Main neither, as far as we could discover, (which we further prov'd by making of Fires,) and that the cold Season was now in that Extremity, that they could not come to us, if there were any; we comforted and refresh'd ourselves, by sleeping the more securely. We chang'd our Island Garrison, every Week; and for other refreshing we were like to have none till the Spring.

From this 10th to the 29th, it did (by Interims) snow and blow so hard, that the Boat could hardly venture ashore, and but seldom land, unless the Men did wade in the thick congeal'd Water, carrying one another. We sensibly perceiv'd withal, how we daily sunk into more Miseries. The Land was all deep cover'd with Snow; the Cold multiply'd, and the thick Snow Water increas'd; and what would become of us, *our most merciful God and Preserver knew only.*

The 29th, I observ'd an Eclipse of the Moon, with what Care possibly I could, both in the Trial of the Exactness of our Instruments, as also in the Observation: I refer you to the Observation, in the latter End of this Relation; where it is at large describ'd. This Month of *October* ended with Snow and bitter cold Weather.

The 1st of *November*, I cast up Accounts with the Steward concerning Victuals; the third Part of our Time being this Day out. I found him an honest Man; for he gave me an Account every Week what was spent; and what was still in the Hold remaining under his Hand: I would

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take no Excuse of Leakage or other Waste, unless he daily shew'd it me. Every Month, I made a new Survey; and every 6 Months, put what we had spar'd, by itself; which now was at least a Month's Provision of Bread, and a Fortnight's of Pease, Fish, &c.

The 3d Day, the Boat endeavour'd to get ashore, but could not get thro' the thick congeal'd Water.

The 4th, they found a Place to get ashore: and so once in 2 or 3 Days, till the 9th, bringing Beer to our Men ashore in a Barrel, which would freeze firmly in the House in one Night. Other Provision they had Store. The Ice Beer, being thaw'd in a Kettle, was not good; and they broke the Ice of the Ponds of Water, to come at Water to drink. This Pond-Water had a most loathsome Smell with it; so that doubting lest it might be infectious, I caus'd a Well to be sunk near the House. There we had very good Water, which tasted, as we flatter'd ourselves, like Milk.

The 10th, having Store of Boards for such a Purpose, I put the Carpenter to work, to make us a little Boat, which we might carry, (if Occasion were) over the Ice, and make Use of her, where there was Water. At Noon, I took the Latitude of this Island, by two Quadrants; which I found to be 52. 00. I urg'd the Men to make Traps to catch Foxes; for we daily saw many. Some of them were pied, black and white: whereby I gather'd, that there was some black Foxes, whose Skins, I told them, were of great Value; and I promis'd, that whosoever could take one of them, should have the Skin for his Reward: Hereupon, they made divers Traps,
and

and waded in the Snow, which was very deep, to place them in the Woods.

The 12th, our House took Fire, but we soon quench'd it: We were oblig'd to keep an extraordinary Fire, Night and Day; and this Accident made me order a Watch to look to it continually; seeing, that if our House and Clothing should be burnt, that we should be in a woful Condition. I lay ashore till the 17th; all which Time our Miseries increas'd. It snow'd and froze extremely. At which Time, we looking from the Shore towards the Ship, she look'd like a Piece of Ice, in the Fashion of a Ship; or a Ship resembling a Piece of Ice. The Snow was all frozen about her, and all her Fore-part firm Ice; and so she was on both Sides also. Our Cables froze in the Hawse, wonderful to behold. I got me aboard, where the long Nights I spent, with tormenting Cogitations; and in the Day-time, I could not see any Hope of saving the Ship. This I was assur'd of, that it was impossible to endure these Extremities long. Every Day the Men must beat the Ice off the Cables, while some within Board, with the Carpenter's long Calking Iron, digg'd the Ice out of the Hawses: In which Work, the Water would freeze on their Cloaths and Hands, and would so benumb them, that they could hardly get into the Ship, without being heav'd in with a Rope.

The 19th, our Gunner, (who, as you may remember, had his Leg cut off) languish'd irrecoverably, and now grew very weak; desiring, that, for the little Time he had to live, he might drink Sack altogether; which I order'd he should.

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The 22d, in the Morning, he died. An honest and a strong-hearted Man. He had a close boarded Cabbin in the Gun-room, which was very close indeed ; and as many Cloaths on him, as was convenient, (for we wanted no Cloaths) and a Pan with Coals, and a Fire continually in his Cabbin. Notwithstanding which Warmth, his Plaister would freeze at his Wound, and his Bottle of Sack at his Head. We committed him, at a good Distance from the Ship, unto the Sea.

The 23d, the Ice increas'd extraordinarily ; and the Snow lay on the Water in Flakes, as it fell ; much Ice also drove by us : yet nothing hard all this while. In the Evening, after the Watch was set, a great Piece came athwart our Hawse ; and four more follow'd after him ; the least of them a Quarter of a Mile broad, which in the Dark very much astonish'd us, thinking it would carry us out of the Harbour, upon the Shoal's Eastern Point, which was full of Rocks. It was newly congeal'd, a Matter of two Inches thick ; and we broke thro' it, the Cable and Anchor enduring an incredible Strefs, sometimes stopping the whole Ice. We shot off three Muskets, signifying to our Men ashore, that we were in Distress ; who answer'd us again, but could not help us. By 10 o'Clock, it was all pass'd ; nevertheless we watch'd carefully ; and the Weather was warmer than we had felt it any Time this Month. In the Morning by Break of Day, I sent for our Men aboard, who made up the House, and arriv'd by 10, being driven by the Way, to wade thro' the congeal'd Water ; so that they recover'd the Boat with Difficulty. There drove by the Ship many Pieces of Ice, tho' not so large as the former, yet much thicker :

er: One Piece came foul of the Cable, and made the Ship drive.

As soon as we were clear of it, we join'd our Strengths together, and had up our Eastermost Anchor; and now I resolv'd to bring the Ship aground; for no Cables nor Anchors would hold her: But I will here shew you the Reasons, why I brought her no sooner aground. First, it was all stony Ground: Some Stones lying dry, 3 or 4 Foot above Water; so that it was to be suspected, that it was the like about us. Secondly, it ordinarily flow'd but 2 Foot and a half here; and if she should bed deep in the Sands, we could not ever come to dig her out again; for that she would not be dry, by 4 or 5 Foot. Thirdly, it was a loose Sand which might rise with the Surf, or so mount about her, that all our weak Powers could not heave it away in the next Spring Time. Fourthly, we doubted the Tides would not high so much in the Summer, as they did now. Fifthly, we could not bring her out of the Tide's Way, which ran something quick here; and the Ice, besides, might drive and mount up upon her, and so overset her, or tear her, and carry away her Planks, Iron-Works, and all; so that we should have nothing left to finish our Pinnace with. Sixthly, if it blew a Storm at N. W. or thereabouts; the Water would flow ten Foot, and upwards; and that Wind being of the Shore, it would blow away all the Ice, and there would come in an extraordinary great Surf about the Shoal to the Eastern Point; which was occasion'd by a deep Overfall. Moreover, she would beat extremely; and if she were put up by the Sea, or that Surf, it was very doubtful that we should never have her off again. For these Reasons, we en-

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dur'd all the Extremity ; still hoping upon some good and fortunate Accident. But now all our provident Designs we saw to become Foolishness, and that a great deal of miserable Labour had been spent in vain by us. With the Flood, we weigh'd our Westermost Anchor, *perceiving God's Assistance manifestly* ; because it happen'd to be fine warm Weather, otherwise we had not been able to work. The Wind was now S. which blew in upon the Shoar, and made the lowest Tides. We brought the Ship into 12 Foot Water, and laid out one Anchor in the Offing, and another in Shoal Water, to draw her on Land at Command. Our Hope also was, that some Stones that were to the Westward of us, would fend off some of the Ice. We then being about a Mile from the Shore, about 10 o'Clock in the dark Night, the Ice came driving upon us, and our Anchors came home. She drove some 2 Cable's Length, and the Wind blowing on the Shore, by 2 o'Clock she came aground, and stopt much Ice ; yet she lay well all Night, and we took some Rest.

The 25th, the Wind shifted Easterly ; and put Abundance of Ice on us. When the Flood was made, we encourag'd one another, and to work we go ; drawing home our Anchor by main Force, under great Pieces of Ice, our Endeavour being to put the Ship to the Shore. But to our great Discomfort, when the half Tide was made ; (which was two Hours before High Water) the Ship drove among the Ice to the Eastward, do what we could, and so would have on the Shoal Rocks. As I have said before, these two Days and this Day was very warm Weather ; and it rain'd, which it had not yet but once done, since we came hither ; otherwise, it had been impossible

sible we could have wrought. Withal, the Wind shifted also to the S. and at the very Instant blew a hard Puff; which so continu'd half an Hour. I caus'd the two Topsails to be had up from betwixt Decks, and we hoist'd them up with Ropes in all Haste, and we forc'd the Ship ashore, when she had not half a Cable's Length to drive on the rocky Shoals. In the Evening, we broke Way thro' the Ice, and put an Anchor to Shoreward in 5 Foot Water, to keep her to the Shore, if possible. Here Sir *Hugh Willoughby* came into my Mind, who, without Doubt, was driven out of his Harbour in this Manner, and so starv'd at Sea. *But God was more merciful to us.* About 9 at Night, the Wind came up at N. W. and blew a very Storm. This Wind was of the Shore, which blew away all the Ice from about us, long before we were afloat. There came in a great rolling Sea withall, about the Point; accompanied with a great Surf on the Shore. And now were we left to the Mercy of the Sea, on the Ground. By 10, she began to roll in her Dock, and soon after began to beat against the Ground. We stood at the Capstang, as many as could; others at the Pumps, for we thought that every fifth or sixth Blow would have stav'd her to Pieces. We heav'd to the uttermost of our Strengths, to keep her as near the Ground as we could. By Reason of this Wind, it flow'd very much Water, and we drew her up so high, that it was doubtful, if ever we should get her off again. She continu'd thus beating, till two o'Clock the next Morning, and then she settled again. Whereupon we went to sleep, to restore Nature; seeing the next Tide we expected to be again tormented.

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The 26th, in the Morning Tide, our Ship did not float, whereby we had some Quietness. After Prayers, I call'd a Consultation of the Master, my Lieutenant, the Mates, Carpenter, and Boatswain; to whom I propos'd, that now we were put to our last Shifts; and therefore they should tell me what they thought of it: Namely, whether it were not best, to carry all our Provision ashore; and when the Wind should come Northerly, it were not safest to draw her further off, and sink her. After many Reasonings they allow'd of my Purpose, and so I communicated it to the Company, who all willingly agreed to it. And so we fell to getting up of our Provisions: first, our Bread, of which we landed this Day two Dryfats with a Hoghead of Beef; having much ado to get the Boat through the thick congeal'd Water. In the Evening, the Wind came up at N. E. and E. and fill'd the Bay full of Ice.

The 27th, the Bay continu'd full of Ice, which I hop'd would so continue and freeze, that we should not be forc'd to sink our Ship. This Day we could land nothing.

The 28th, at Break of Day, three of our Men went ashore over the Ice, unknown to me; and the Wind coming up at W. drove the Ice from betwixt us and the Shore, and most Part of the Bay also: And yet not so, but the Boat could go ashore for any Thing. I made the Carpenter fit a Place against all sudden Extremities; for that with the N. W. or Northerly Wind, I meant to effect our last Project. In the Run of her, on the Starboard Side; he cut away the Cieling and the Plank to the Sheathing, some 4 or 5 Inches square; some 4 Foot high from the Keel of her, that so it might be bor'd out, at an Instant. We brought

brought our Bread, which was remaining in the Bread-Room, up into the great Cabbin; and likewise all our Powder, fitting much of our light dry Things betwixt Decks.

The 29th, at 5 in the Morning, the Wind came up at W. N. W. and began to blow very hard. It was ordinary for the Wind to shift from the W. by the N. round about. So first, I order'd the Cooper to go down in Hold, and look to all our Casks; those that were full, to mawl in the Bungs of them; those that were empty, to get up, or if they could not be gotten up, to stave them. Then to coil all our Cables upon our lower Tire, and to lay on our spare Anchors, and any Thing that was weighty, to keep it down from rising. By 7 o'Clock, it blew a Storm at N. W. our bitter Enemy. The Ship was already bedded some two Foot in the Sand, and whilst that was a flowing, she must beat. This I before had in my Consideration; for I thought she was so far driven up, that we should never get her off. Yet we had been so ferrited by her last beating, that I resolv'd to sink her right down, rather than run that Hazard. By 9, she began to roll in her Dock, with a most extraordinary great Sea that was come; which I found to be occasion'd by the foremention'd Overfall. And this was the fatal Hour that put us to our Wits End. Wherefore I went down into the Hold with the Carpenter, and took his Auger and bor'd a Hole in the Ship, and let in the Water. Thus, with all Speed, we began to cut out other Places, to bore through, but every Place was full of Nails. By 10, notwithstanding, the lower Tire was cover'd with Water, for all which, she began so to beat in her Dock more and more, that we could not work, nor stand to
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do any Thing in her. Nor would she sink so fast as we would have her, but continu'd beating double Blows; first abaft, and then before, that it was wonderful, how she could endure a Quarter of an Hour with it. By 12, her lower Tire rose, and that did so counterbeat on the Inside, that it beat the Bulk Heads of the Bread-room, Powder-room, and Fore-piece, all to Pieces; and when it came betwixt Decks, the Chests fled wildly about, and the Water did flash and fly wonderfully; so that now we expected every Minute, when the Ship would open and break to Pieces. At one, she beat off her Rudder, and that was gone, we knew not which Way. Thus she continu'd beating till 3; and then the Sea came up on the Upper Deck; and soon after, she began to settle. In her, we were fain to sink the most Part of our Bedding and Cloaths; and the Chirurgeon's Chest with the rest. Our Men that were ashore, stood looking upon us, almost dead with Cold, and Sorrows to see our Misery, and their own. We look'd upon them again, and both upon each other with woful Hearts. Dark Night drew on, and I order'd the Boat to be hal'd up, and commanded my loving Companions to go all into her; who express'd their faithful Affections to me, as loath to part from me. I told them, that my Meaning was to go ashore with them. And thus, lastly, I forsook the Ship.

We were 14 poor Souls, now in the Boat, and we imagin'd, *that we were leap'd out of the Frying-Pan into the Fire.* The Ebb was made, and the Water extraordinary thick congeal'd, with Snow; so that we thought assuredly, it would carry us away into the Sea. We thereupon double mann'd 4 Oars; appointing 4 more to sit ready

ready with Oars ; and so with *the Help of God we got to the Shore*, haling up the Boat after. One Thing was most strange in this thick Water, that there went a great swelling Sea. Being arriv'd upon the Land, we greeted our Fellows the best we could : At which Time they could not know us, nor we them by our Habits and Voices ; so frozen all over we were, Faces, Hair, and Apparel. And here I mean to take Breath awhile, after all this long and unpleasant Relation of our miserable Endeavours ; craving leave first of all to speak a Word or two in general.

The Winds, since we came hither, have been very variable and inconstant ; and till within this Fortnight, the Southerly Wind was the coldest. The Reason I conceive to be, that it blew from the Main Land ; which was all cover'd with Snow ; and the North Winds came out of the great Bay which hitherto was open : So that ; we were under a S. Bank that shelter'd us ; so that we were not so sensible of it.

A N. W. a N. W. by N. and N. N. W. Wind, if it blew a Storm, would raise the Tides extraordinarily ; and, in brief, from the W. N. W. to the N. N. E. would raise the Tides in Proportion, as it blew from the Middle Point : The Wind being on the opposite Points, if it blew, it would flow very little at all. The harder it blew, the less Water it would flow. If it were little Wind, or Calm, it would flow indifferently. The Tides do high ordinarily, without being forc'd, about 3 Foot ; but being forc'd with the foremention'd Winds, upward of 10 Foot. I could perceive no Difference between Neap and Spring Tides : It flows half Tide ; that is, the Flood comes from the Northward,
and

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and thither returns again, two Hours before high Water; and it is commonly so seen in most Bays or Inlets.

An ACCOUNT of the Manner of our passing the
WINTER.

AFTER we had hal'd up the Boat, (on the 29th of November,) we went along the Breach Side in the Dark, towards our House, where we made a good Fire, and with it, and Bread and Water, we comforted ourselves, beginning after that to reason one with another, concerning our Ship. I requir'd that every one should speak his Mind freely. The Carpenter, especially, was of Opinion, that she was founderd, and would never be serviceable. He alledg'd, that she had so beaten, that it was not possible, but that all her Joints were loose, and Seams open; and that by Reason it flow'd so little Water, and no Creek, nor Cove, being near, wherein to bring her aground, he could not devise how he might come to mend it. Moreover, her Rudder was lost, and he had no Iron-work to hang on another. Some alledg'd, that we had heav'd her up so high on the Sands, that they thought we should never have her off again, and that they were assur'd she was already dock'd 3 Foot. Others, that she lay in the Tide's Way, and that the Tides might tear her to Pieces off the Ground; besides which, two of our Anchors we could not now get from under the Ice, which when the Ice brake (which would be of great Thickness by the Spring) would break our Anchors to Pieces, and then we should have no Anchors

chors to bring us Home withal; provided we got off the Ship, and that she prov'd sound also. I comforted them the best I could with such like Words: My Masters, and faithful Companions, be not dismay'd for any of these Disasters, but let us *put our whole Trust in God*. It is he that giveth, and he that taketh away; he throws down with one Hand, and raiseth up with another. His Will be done. If it be our Fortunes to end our Days here, we are as near Heaven, as in *England*; and we are much bound to *God Almighty* for giving us so large a Time of Repentance, who, as it were, daily calls upon us, to prepare our Souls for a better Life in Heaven. I make no doubt, but he will be merciful to us, both here on Earth, and in his blessed Kingdom; he doth not in the mean Time deny, but that we may use all honest Means to save and prolong our natural Lives withal; and in my Judgment, we are not yet so far past Hope of returning into our native Country, but that I see a fair Way, by which we may effect it. Admit the Ship be founder'd, (which God forbid, I hope the best) yet have those of our own Nation, and others, when they have been put to these Extremities, even out of the Wreck of their lost Ship, built a Pinnace, and recover'd to their Friends again. If it be objected, that they have happen'd into better Climates, both for Temperateness of the Air, and for pacifick and open Seas; and provided withal, of Abundance of fresh Victuals; yet there is nothing too hard for courageous Minds: Which hitherto you have shewn, and I doubt not will still do, to the utmost of your Power.

They all protested to work to the utmost of their Strength, and that they would refuse nothing

thing that I should order them to do; to the utmost Hazard of their Lives. I thank'd them all; and to the Carpenter for his chearful Undertaking, I promis'd to give him so much Plate presently, as should be worth 10 *l.* and if so be I went to *England* in the Pinnace, I would give her him freely, and 50 *l.* in Money over and above, and would moreover gratify all them, that I should see industrious. Thus we resolv'd, to build us a new Pinnace, with the Timber we should get upon the Island; that so in the Spring, if we found the Ship not serviceable, we might tear her up, and plank her with the Ship's Planks. And so for this Night we settled ourselves close about the Fire, and took some Rest till Day-light.

The 30th, betimes in the Morning, I caus'd the Chirurgeon to cut the Hair of my Head short, and to shave away all the Hair of my Face; for it was become intolerable; and because it would be frozen so great with Ice-Sickles.

November. The like did all the Rest, and we fitted ourselves to work. The first Thing we were to do, was to get our Cloaths and Provisions ashore; and therefore I divided the Company. The Master, and a convenient Company with him, were to go aboard; and to get Things out of the Hold. The Cock-swain, with his Gang, were to go in the Boat, to bring and carry Things ashore. Myself, with the rest, to carry it Half a Mile thro' the Snow, unto the Place where we intended to build a Storehouse; as for the heavier Things we purposed to lay them upon the Beach. In the Afternoon, the Wind was at S. S. W. and the Water veer'd to so low an Ebb, that we thought we might get something out

out of our Hold; we lanch'd out our Boat therefore, and with Oars got thro' the thick congeal'd Water. It froze extreme hard, and I stood on the Shore with a troubl'd Mind, thinking verily that with the Ebb the Boat would be carried into the Sea; and then we were all lost Men. But *by God's Assistance*, they got safely to the Ship, and made a Fire there, to signify their Arrival aboard. They fell presently to work, and got something out of the Hold, upon the Decks; but Night coming on, they durst not venture to come ashore, but lay on the Bed in the great Cabbin, being almost starved.

The 1st of *December* was so cold, that I went the same Way over the Ice to the Ship, where the Boat had gone Yesterday. This Day we carried upon our Backs in Bundles 500, of our Fish, and much of our Bedding and Cloaths; which we were fain to dig out of the Ice.

The 2d was mild Weather, and some of the Men going over the Ice, fell in, and very hardly recover'd; so that this Day we could land nothing, neither by Boat nor Back: I put them therefore to make us a Storehouse ashore. In the Evening, the Wind came up at W. and the Ice broke and drove out of the Bay; it was very deep and large Ice, that we were afraid it would have spoil'd the Ship.

The 3d Day, there were divers great Pieces of Ice that came athwart the Ship, and she stopp'd them, yet not so as we could go over them. We found a Way for the Boat; but when she was loaden, she drew 4 Foot Water, and could not come within a slight Shot of the Shore. The Men therefore must wade thro' the thick congeal'd Water, and carry Things out of the Ship upon their Backs. Every Time they waded in the
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in the Ice, 'twas most lamentable to behold. In this extreme cold Evening, they cut away as much Ice from about the Boat as they could, and pick'd it with Hand-spikes out of her, and endeavouring to hoist her into the Ship. There being small Hope, that she could go to and again any more. But use what Means they could, she was so heavy, that they could not hoist her in; but were fain to leave her in the Tackles by the Ship's Side.

The 4th being *Sunday*, we rested; and perform'd the Sabbath Duties of Christians.

The 5th and 6th were extreme cold, and we made Bags of our Store Shirts; and in them we carried our loose Bread over the Ice ashore upon our Backs. We also digg'd our Cloaths and new Sails with Hand Spikes of Iron, out of the Ice, and carried them ashore, which we dry'd by a great Fire.

The 7th Day was so extremely cold, that our Noses, Cheeks, and Hands, did freeze as white Paper.

The 8th and 9th, it was extreme cold, and it snow'd much, yet we continu'd our Labour; in carrying and rolling Things ashore. In the Evening, the Water rais'd the Ice very high, and it broke two Thawghts of our Boat, and broke in the Side of her; but for that Time we could not help it.

The 10th, our Carpenter found Timber to make a Keel, and a Stern, for our Pinnace; the rest wrought about our Provisions, until the 13th Day; and that we spent in digging our Boat out of the Ice, which we were fain to do to the very Keel; and dig the Ice out of her, and then we got her up on the Ice: In doing which, many had their Noses, Cheeks and Fingers, frozen as white

white as Paper. The Cold now increas'd most extremely. By the 19th, we could get no more Things out of our Hold; but were fain to leave five Barrels of Beef and Pork, all our Beer, and divers other Things; which were all firm frozen in her.

The 21st was so cold, that we could not go out of the House.

The 23d, we went to have our Boat ashore, running her over our Oars; but by 10 o'Clock there came such a thick Fog, that it was as dark as Night. I made them give over, and make what Haste we could to the Shore, which we had much ado to find, for the Time, losing one another. At the last, we met all at the House, the miserablest frozen that can be conceiv'd. Upon divers, the Cold had rais'd Blisters as big as Wall-nuts. This we imagin'd to come, by Reason that they came too hastily to the Fire. Our Well was now frozen up; so that dig as deep as we could, we can come by no Water. Melted Snow-Water is very unwholsome, either to drink or to dress our Victuals. It made us so short-breath'd, that we were scarce able to speak. All our Sack, Vinegar, Oil, and every Thing else that was liquid, was now frozen as hard as a Piece of Wood, and we must cut it with a Hatchet. Our House was all frozen on the Inside, and it froze hard, within a Yard of the Fire Side. When I landed first upon this Island, I found a Spring under a Hill's Side; which I then observing, I caus'd some Trees to be cut for Marks to know the Place again by. It was about three Quarters of a Mile from our House. I sent three of our Men which had been formerly with me, thither upon the 24th. These wading thro' the Snow, at last found the Place, and shovelling
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away the Snow, they made Way to the very Head of it. They found it spring very strongly, and brought me a Can of it, for which I was right joyful. This Spring continu'd all the Year; and did not freeze; but that we could break the Ice, and come to it. We labour'd very hard, these 3 or 4 Days, to get Wood to the House, which we found to be very troublesome, thro' the deep Snow.

We then settled our Bedding and Provisions, providing to keep *Christmas* Day holy, which we solemniz'd in the joyfulest Manner we could: So likewise did we *St. John's* Day: Upon which we nam'd the Wood we did winter in, in Memory of that Honourable Knight, Sir *John Winter*, *Winter's* Forest. And now instead of a *Christmas* Tale, I will here describe the House that we did live in, with those adjoining.

When I first resolv'd to build a House, I chose the warmest and convenientest Place, and the nearest the Ship withal. It was among a Tuft of thick Trees, under a South Bank, about a slight Shot from the Sea Side. True it is, that at that Time we could not dig into the Ground, to make us a Hole, or Cave, in the Earth, which had been the best Way, because we found Water digging within two Foot; and therefore that Project fail'd. It was a white light Sand; so that we could, by no Means, make up a Mud-Wall. As for Stones, there were none near us; moreover, we were all now cover'd with the Snow. We had no Boards for such a Purpose; and therefore we must do the best we could, with such Materials as we had about us.

The House was square, about 20 Foot every Way; as much namely, as our Main Course could well cover: First, we drove strong Stakes
into

into the earth, round about : which we wattel'd with Boughs, as thick as might be, beating them down very close. This our first Work was six Foot high on both Sides, but at the Ends, almost up to the very Top. There we left two Holes, for the Light to come in at ; and the same Way the Smoke did vent out also. Moreover, I caus'd at both Ends, three Rows of thick Bush Trees, to be stuck up, as close together as possible. Then at a Distance from the House, we cut down Trees ; proportioning them into Lengths of 6 Foot, with which we made a Pile on both Sides, 6 Foot thick, and 6 Foot high ; but at both Ends, 10 Foot high, and 6 Foot thick. We left a little low Door to creep into, and a Portal before that, made with Piles of Wood, that the Wind might not blow into it. We next fasten'd a rough Tree aloft over all : Upon which we laid our Rafters ; and our Main Course over them again, which lying thwart-ways over all, reach'd down to the very Ground, on either Side. And this was the Fabrick of the Outside of it. On the Inside, we made fast our Bonnet Sails round about. Then we drove in Stakes, and made us Bedstead Frames ; about 3 Sides of the House, which Bedsteads were double, one under another, the lowermost being a Foot from the Ground : These, we first fill'd with Boughs, then we laid our spare Sails on that, and then our Bedding and Cloaths. We made a Hearth, in the Middle of the House, and on it made our Fire : Some Boards we laid round about our Hearth, to stand upon, that the cold Damp should not strike up into us. With our Waste Cloaths, we made us Canopies and Curtains ; others did the like with our small Sails. Our second House was not past 20 Foot

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distant from this, and made for the Wattling much after the same Manner, but it was less, and cover'd with our Fore-Course: It had no Piles on the South Side; but in Lieu of that, we pil'd up all our Chests, on the Inside: And indeed the Reflex of the Heat of the Fire against them, did make it warmer than the Mansion House. In this House, we dress'd our Victuals; and the subordinate Crew did refresh themselves all Day in it. A third House, which was our Storehouse, about 29 Paces off from this; for fear of firing. This House was only a rough Tree fasten'd aloft, with Rafters laid from it to the Ground, and cover'd over with our new Suit of Sails. On the Inside, we had laid small Trees, and cover'd them over with Boughs; and so stor'd up our Bread, and Fish in it, about 2 Foot from the Ground, the better to preserve them. Other Things lay more carelessly.

Long before *Christmas*, our Mansion House was cover'd thick over with Snow, almost to the very Roof of it. And so likewise was our second House; but our Storehouse all over; by Reason we made no Fire in it. Thus we seem'd to live in a Heap, and Wilderness of Snow; forth of our Doors we could not go, but upon the Snow; in which we made us Paths middle deep in some Places; and in one special Place, the Length of ten Steps. To do this, we must shovel away the Snow first; and then by treading, make it something hard under Foot: The Snow in this Path, was a full Yard thick under us. And this was our best Gallery for the sick Men; and for mine own ordinary Walking. And both Houses and Walks, we daily accommodated more and more, and made fitter for our Uses.

The 27th, we got our Boat ashore ; and fetch-
ed up some of our Provisions from the Beach
Side into the Storehouse ; and so by Degrees did
we with the rest of our Provisions: with Extre-
mity of Cold and Labour, making Way with
Shovels thro' the deep Snow ; even from the
Sea Side unto our Storehouse. And thus con-
cluded we the old Year, 1631.

The 1st of *January* 1632, and for the most
Part all the Month, was extreme cold.

The 6th, I observ'd the Latitude, with what
Exactness I could, it being clear Sunshine Wea-
ther, which I found to be 51. 52. This Diffe-
rence, is by Reason that here is a great Re-
fraction.

The 21st, I observ'd the Sun to rise like an O-
val, along the Horizon: I call'd three or four to
see it, the better to confirm my Judgment, and
we all agreed, that it was twice as long as it was
broad. We plainly perceiv'd withal, that by
Degrees as it got up higher, it also recover'd its
Roundness.

The 30th and 31st, there appear'd in the Be-
ginning of the Night, more Stars in the Firma-
ment, than ever I had before seen by two thirds.
I could see the Cloud in *Cancer*, full of small
Stars ; and among the *Pylades*, a great many
small Stars. About 10 o'Clock, the Moon rose;
and then a Quarter of them was not to be seen.
The Wind for the most Part of this Month, hath
been Northerly, and very cold : The warmest of
which Time we employ'd ourselves in fetching
Wood, working upon our Pinnacle, and other
Things that happen'd. In the Beginning of this
Month, the Sea was all firmly frozen over, so
that we could see no Water any Way. I hope
it will not seem tedious to the Readers, if I here

deliver my Opinion, how this Abundance of Ice comes to be ingender'd.

The Land that encircles this great Bay, (which lies in a broken irregular Form, making many little Shoal Bays, and Guts ; being, moreover, full of Islands and dry Sands) is for the most Part low and flat, and hath flat Shoals adjoyning to it, half a Mile or a Mile, that are dry at low Water. Now you must know, that it flows half Tide, (as I have often experienc'd) that is, from whence the Flood cometh, the Water thither returneth, 2 Hours before it is High Water, or full Sea. It seldom rains, after the Middle of *September*, but snows ; and that Snow will not melt on the Land nor Sands : At Low Water when it snows, (which it doth very often) the Sands are all cover'd over with it, which the half Tide carries officiously, twice in 4 Hours, into the great Bay, which is the common Rendezvous of it. Every Low Water, the Sands are left clear, to gather more to the Increase of it. Thus doth it daily gather together in this Manner, till the latter End of *October*, and by that Time hath it brought the Sea to that Coldness, that as it snows, the Snow will lie upon the Water in Flakes without changing his Colour ; but with the Wind is wrought together ; and as the Winter goes forward, it begins to freeze on the Surface of it, 2 or 3 Inches, or more, in one Night : which being carried with the half Tide, meets with some Obstacle, as it soon doth, and then it crumples and so runs upon itself, that in a few Hours, it will be 5 or 6 Foot thick. The half Tide still flowing, carries it so fast away, that by *December* it is grown to an infinite Multiplication of Ice. And thus by this Storing of it up, the Cold gets the Predomination in the Sea, which also furnisheth

furnisheth the Springs and Water, in the low flat Lands, that it cools it like itself. This may appear by our Experience, though in all this, I freely submit myself to the more learned. Our Men found it more mortifying cold to wade thro' the Water in the Beginning of *June*, when the Sea was full of Ice, than in *December*, when it was increasing. Our Well, more-over, out of which we had Water in *December*, we had none in *July*.

The Ground, at 10 Foot deep, was frozen. The Quantity of the Ice, may very easily be made to appear, by Mathematical Demonstration: And yet I am not of the Opinion, that the Bay doth not freeze all over. For the 21st, the Wind blowing a Storm at North, we could perceive the Ice to rise something in the Bay.

Feb. 1632. The Cold was extreme this Month, as at any Time we had felt it this Year; and many of our Men complain'd of Infirmities. Some, of sore Mouths; all the Teeth in their Heads being loose, their Gums swoln, with black rotten Flesh, which must every Day be cut away. The Pain was so sore on them, that they could not eat their ordinary Meat. Others complain'd of Pain in their Heads, and their Breasts: Some of Weakness in their Backs; others of Aches in their Thighs and Knees: And others, of Swellings in their Legs. Thus were two thirds of the Company, under the Chirurgeon's Hand. And yet, nevertheless, they must work daily; and go abroad to fetch Wood and Timber, notwithstanding the most of them had no Shoes to put on. Their Shoes, upon their coming to the Fire, out of the Snow, were burnt and scorch'd upon their Feet, and our Store-Shoes were all sunk in the Ship. In this Necessity they would

make this Shift: To bind Clouts about their Feet, and endeavour'd by that poor Help, the best they could to perform their Duties. Our Carpenter likewise is, by this Time, fallen sick to our great Discomforts. I practis'd some Observations, by the Rising and Setting of the Sun, calculating the Time of his Rising and Setting, by very true Running Glass'es. As for our Clock and Watch, notwithstanding we still kept them by the Fire Side, in a Chest wrap'd in Cloaths, yet were they so frozen, that they could not go. My Observations by these Glass'es, I compar'd with the Stars coming to the Meridian. By this Means we found the Sun to rise 20 Minutes before it should: And in the Evening to remain 20 Minutes, or thereabouts, longer than it should do. And all this by Reason of the Refraction.

Since now, I have spoken so much of the Cold, I hope it will not be too coldly taken, if I, in a few Words, make it some Way to appear unto our Readers.

We made three Differences of the Cold, all according to the Places. In our House, in the Woods, and in the open Air, upon the Ice, in our going to the Ship.

For the last, it would be sometimes so extreme, that it was almost indurable: no Cloaths were Proof against it; no Motion could resist it. It would, moreover, so freeze the Hair on our Eye-lids, that we could not see: and I verily believe, that it would have stifled a Man, in a very few Hours. We daily found by Experience, that the Cold in the Woods would freeze our Faces, or any Part of our Flesh that was bare; but it was yet not so mortifying as the other. Our House on the Out-side, was cover'd two third Parts with Snow; and on the In-side frozen, and hung with Icesickles.

Icefickles. The Cloaths on our Beds would be cover'd with Hoar Frost, which, in this little Habitation, was not far from the Fire. But let us come a little nearer to it. The Cook's Tubs, wherein he water'd his Meat, standing about a Yard from the Fire, and which he all Day ply'd with melted Snow Water: yet in the Night Season, whilst he slept but one Watch, would they be firm frozen to the very Bottom. And, therefore, he was forc'd to water his Meat in a Brass Kettle close adjoyning to the Fire; and I have many Times, both seen and felt by putting my Hand into it; that Side, which was next the Fire, was very warm, and the other Side an Inch frozen; I leave the rest to our Cook, who will almost speak Miracles of the Cold. The Surgeon, who had hung his Bottles of Sirrups, and other liquid Things, as conveniently as he could, to preserve them, had them all frozen: Our Vinegar, Oil, and Sack, which we had in small Casks in the House, was all firm frozen. It may further in general be conceiv'd, that in the Beginning of *June*, the Sea was not broken up; and the Ground was yet frozen; and this we found by Experience, in the burying of our Men; in setting up the King's Standard towards the latter End of *June*; and by our Well, at our coming away in the Beginning of *July*: At which Time upon the Land, for some other Reasons, it was very hot Weather.

March 1632. The 1st of this Month, being St. David's Day, we kept Holiday, and solemnized it in the Manner of the Ancient Britons; praying for the Happiness of His Royal Highness, *Charles*, Prince of *Wales*.

The 15th, one of our Men thought he had seen a Deer; whereupon, he with two or three
more

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more desir'd that they might go to see, if they could take it. I gave them Leave; but, in the Evening, they return'd so disabled with Cold, which did rise up in Blisters under the Soles of their Feet, and upon their Legs, to the Bigness of Walnuts; that they could not recover their former Estate, which was not very well, in a Fortnight after.

The 26th, three more desire that they also might go out to try their Fortunes; but they return'd worse disabled, and even almost stiff'd with the Cold.

This Evening, the Moon rose in a very long Oval along the Horizon.

By the last of this Month, the Carpenter had set up 17 Ground Timbers, and 34 Staddles: And, poor Man, he proceeded the best he can, tho' he be forc'd to be led to his Labour.

In short, all this Month hath been very cold. The Wind about the N. W. The Snow as deep as it has been all this Winter: But to answer an Objection that may be made; You were in a Wood, (some Men may say unto us) and therefore you might make Fire enough to keep you from the Cold. It is true, we were in a Wood, and under a South Bank too; or otherwise, we had all starv'd. But I must tell you withal, how difficult it is to have Wood in a Wood. And, first, I will make a Muster of the Tools we had: The Carpenter, in his Chest, had two Axes indeed; but one of them was spoil'd in cutting down Wood to pile about our House before *Christmas*: When we first landed we had but two whole Hatchets, which, in a few Days, broke 2 Inches below the Sockets. I call'd for three of the Cooper's Hatchets: The Carpenter's Ax, and the Cooper's best Hatchet, I caus'd to be
lock'd

lock'd up ; the other two Hatchets to be new helv'd, and the Blades of the two broken Hatchets, to be put into a cleft Piece of Wood, and then to be bound about with Rope Yarn as fast as might be ; which must be repair'd every Day. And these were all the cutting Tools we had : Moreover, the 6th of *February*, the Carpenter had out his best Ax, about something, and one of the Company in his Absence, by his indiscreet Handling of it, broke that too, two Inches below the Socket : We must henceforth order these Pieces of Tools the best we could : Wherefore I gave Order, that the Carpenter should have one of the Cooper's Hatchets ; they that look'd for Timber in the Woods, the other : And they that cut down Wood to burn, were to have the two Pieces. And this was before *Christmas*.

The three that were appointed to look crooked Timber, must stalk and wade, sometimes on all four, thro' the Snow : And where they saw a Tree likely to fit the Mould, they must heave away the Snow, and then see if it would fit the Mould ; then they must make a Fire to it, to thaw it ; otherwise it could not be cut. Then cut it down, and fit it to the Length of the Mould ; and then with other Help, get it Home, a Mile thro' the Snow.

Now for our Firing. We could not burn green Wood, it would so smoke, that it was intolerable ; yea, the Men had rather starve without in the Cold, than sit by it. As for the dry Wood, that also was bad enough in that Kind : for it was full of Turpentine, and would send forth such a thick Smoke, that would make Abundance of Soot : Which made us all look, as if we had been free of the Company of Chimney-Sweepers.
Our

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Our Cloaths were quite burnt to Pieces about us : And for the most Part, we were all without Shoet : But to our Fuellers again. They must first, as the former, go up and down in the Snow, till they saw a Tree standing ; for the Snow cover'd those that were fallen. Then they must hack it down with their Pieces of Hatchets ; and then others must carry it Home through the Snow. The Boys with Cutlasses, must cut Boughs for the Carpenter ; for every Piece of Timber that he work'd, must first be thaw'd in the Fire ; and he must have a Fire by him, or he could not work. And this was our continual Labour, throughout the foremention'd Cold : Besides our tending of the Sick, and other necessary Employments.

April 1632. The 1st of this Month being *Easter-Day*, we solemniz'd it as religiously as God gave us Grace to do. Both this Day, and the two following Holidays were extreme cold : And now sitting all about the Fire, we reason'd and consider'd together upon our Estate : We had five Men, whereof the Carpenter was one, not able to do any Thing. The Boatswain and many more, were very infirm ; and of all the rest, we had but five, that could eat of their ordinary Allowance. The Time and Season of the Year came forwards apace ; and the Cold very little abated : Our Pinnace was in an indifferent Forwardness ; but the Carpenter grew worse and worse : The Ship, as we then thought, lay all full of solid Ice, which was Weight enough to open the Seams of any new and sound Vessel ; especially of one that had lain so long upon the Ground as she had done. In short, after many Disputations, and laying open of our miserable and hopeless Estates, I resolv'd upon this Course ;
that

that notwithstanding it was more Labour, and we weaker and weaker; yet with the firm warm Weather, we would begin to clear the Ship; that we might have the Time before us, to think of some other Course. This being order'd, we look'd to those Tools we had, to dig the Ice out of her; we had but two Iron Bars ashore; the rest were sunk in the Ship, and one of them was broken too. We fell to fitting of those Bars, and four broken Shovels that we had: which we intended, as afterwards we did, to dig the Ice out of her; and to lay that Ice on a Heap, upon the Larboard Bow, and to sink it down to the Ground so fast, that it should be a Barricado to us, when the Ice broke up, which we fear'd would tear us to Pieces.

The 6th, was the deepest Snow we had all this Year; which fill'd up all our Paths and Ways, by which we were us'd to go unto the Wood: This Snow was something moister and greater, than any we had had all this Year; for formerly it was as dry as Dust, and as small as Sand, and would drive like Dust with the Wind.

The Weather continu'd with this Extremity, till the 15th, at which Time our Spring was harder frozen, than it had been all the Year before. I had often observ'd the Difference betwixt clear Weather and misty Refractive Weather, in this Manner. From a little Hill, which was near adjoining to our House, in the clearest Weather, when the Sun shone with all the Purity of Air, that I could conceive, we could not see a little Island, which bore off us S. S. E. 4 Leag. but if the Weather was misty, as aforesaid, then we should often see it, from the lowest Place. This little Island I had seen the last Year, when I was on *Danby* Island: The 13th, I
took

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took the Height of it instrumentally ; standing near the Sea-side : which I found to be 34 Minutes, the Sun being 28 Degrees high. This shews, how great a Refraction here is. Yet this may be noted by the Way ; that I have seen the Land elevated, by Reason of the Refractive Air ; and nevertheless, the Sun hath risen perfect round.

The 16th, was the most comfortable Sunshine Day, that came this Year ; and I put some to clear off the Snow from the upper Decks of the Ship ; and to clear and dry the great Cabbin, by making Fire in it. Others I put to dig down thro' the Ice, to come by our Anchor, that was in Shoal Water, which the 17th, in the Afternoon we got up, and carried aboard.

The 18th, I put them to dig down thro' the Ice, near the Place where we thought our Rudder might be. They digg'd down, and came to Water ; but no Hopes of finding of it ; we had many Doubts, that it might be fanded : Or that the Ice might have carried it away already, the last Year : Or if we could not recover it by digging before the Ice broke up, and drove, there was little Hopes of it.

The 19th, we continu'd our Mining Work aboard the Ship, and return'd in the Evening to Supper ashore. This Day, the Master and two others desired that they might lie aboard ; which I agreed to : for indeed they had lain very discommodiously all the Winter, and with sick Bed-fellows, as I myself had done ; every one in that Kind taking their Fortunes. By lying aboard, they avoided the hearing of the miserable Groanings, and Lamentings of the sick Men all Night long ; enduring, poor Souls, intolerable Torments.

By

By the 21st, we had labour'd so hard, that we came to the Sight of a Cask ; and could likewise perceive, that there was some Water in the Hold. This we knew could not be thaw'd Water ; because it froze Night and Day very hard aboard the Ship, and on the Land also.

By the 23^d in the Evening, we came to pierce the foremention'd Cask ; and found it full of very good Beer, which much rejoyc'd us all ; especially the sick Men, notwithstanding it tasted a little of bulg'd Water. By this we thought that the Holes we had cut to sink the Ship were frozen, and that this Water had stood in the Ship all the Winter.

The 24th, we went betimes in the Morning to work ; but we found that the Water was risen above the Ice where we had left Work, about two Foot ; for the Wind had blown very hard at N. the Night before. In the Morning, the Wind came about S. and blew hard, and altho^o we had little Reason for it, we yet expected a lower Veer of the Water. I thereupon put them to work on the Outside of the Ship, that we might come to the lower Hole, which we had cut in the Stern-Shoots. With much Labour by Night, we digg'd down thro' the Ice to it ; and found it unfrozen, as it had been all the Winter, and to our great Comforts, we found that on the Inside, the Water was ebb'd within the Hole, and that on the Outside, it was ebb'd a Foot lower. Hereupon I caus'd a Shotboard to be nail'd on it, and to be made as tight as might be, to try if the Water came in any other Way. To the other two Holes, we had digg'd on the Inside, and found them frozen. Now I did this betimes, that if we found the Ship founder'd, we might resolve on some Course to save, or
prolong

prolong our Lives, by getting to the Main before the Ice were broken up : As for our Boat it was too little, and bulg'd, besides that. Our Carpenter was by this Time past Hopes, and therefore little Hope had we of our Pinnacle. But which was worst of all, we had not four Men able to travel thro' the Snow over the Ice, and in this miserable State where we at this present.

The 25th, we satisfied our Longing ; for the Wind now coming about Northerly, the Water rose by the Ship's Side, where we had digg'd down, a Foot and more above the Hold : and yet did not rise within Board. This so incouraged us, that we fell lustily to digging, and to heave the Ice, out of the Ship. I put the Cook and some others, to thaw the Pumps ; who by continual pouring of hot Water into them ; by the 27th in the Morning they had clear'd one of them : Which, we proving, found it deliver'd Water very sufficiently. Thus we fell to Pumping, and having clear'd two Foot Water, we left the other to a second Trial. Continuing our Work thus, in digging the Ice ; by the 28th, we had clear'd our other Pump ; which we also found to deliver Water very well. We found likewise, that the Water did not rise any Thing in the Hold.

The 29th, it rain'd all Day long, a sure Sign to us, that Winter was broken up.

The 30th, we were betimes aboard at our Work : Which Day, and the 31st, were very cold, with Snow and Hail ; which pinch'd our sick Men more than any Time this Year. This Evening being *May* Eve ; we return'd late from our Work to our House, and made a good Fire, and chose Ladies, and ceremoniously wore their Names in our Caps ; endeavouring to revive our-
selves

selves by any Means. And because you hear us in this merry Humour ; I will make known to you, what good Cheer we kept at *Christmas* and *Easter* ; and how we had dieted ourselves all the Winter.

At our Coming from *England*, we were stor'd with all Sort of Sea Provisions, as Beef, Pork, Fish, &c. but now as we had little Hope of recruiting, our Cook order'd it in this Manner.

The Beef, which was to serve on *Sunday* Night to Supper ; he boil'd on *Saturday* Night, in a Kettle full of Water, with a Quart of Oatmeal, about an Hour ; then taking the Beef out, he boil'd the rest till it came to half the Quantity : And this we call'd Porrage, which we eat with Bread, as hot as we could ; and after this we had our Ordinary of Fish. *Sunday* Dinner, we had Pork and Pease ; and at Night the former boil'd Beef made more Porrage. In this Manner, our *Tuesdays* Beef was boil'd on the *Monday* Nights ; and the *Thursdays* upon the *Wednesdays*. And thus, all the Week, except *Friday* Night, we had some Thing warm in our Bellies, every Supper. And surely this did us a great deal of Good. But soon after *Christmas* many of us fell sick, and had sore Mouths ; and could neither eat Beef, Pork, Fish, nor Porrage. Their Diet was only this. They would pound Bread, or Oatmeal, in a Mortar, to Meal ; then fry it in a Frying Pan, with a little Oil, and so eat it. Some would boil Pease to a soft Paste, and feed as well as they could, upon that. For the most Part of the Winter, Water was our Drink. In the whole Winter we took not above a Dozen Foxes ; many of which would be dead in the Traps, two or three Days, oftentimes ; and then when the Blood was settled, they would be unwholsome. But if we took

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one alive, that had not been long in the Trap, him we boil'd, and made Broth for the weakest sick Men ; the Flesh of it being soft boil'd they eat also.

Some white Partridges we kill'd ; but not worth mentioning.

We had three Sorts of sick Men. Those that could not move nor turn themselves in their Beds, who must be tended like an Infant. Others that were as it were crippl'd with scummy Aches, and others that were something better ; most had sore Mouths. You may now ask me, How these infirm Men could work ? I will tell you : Our Surgeon, who was a diligent, and sweet condition'd Man, as ever I saw, would be up betimes in the Mornings ; and whilst he pick'd their Teeth, and cut away the dead Flesh from their Gums, they would bath their Thighs, Knees, and Legs. The Manner of it was this : There was no Tree, Bud or Herb ; but we made Trial of it : And this being first boil'd in a Kettle, and then put in a small Tub, and Basons ; they put it under them, and covering themselves with Cloaths upon it ; this would so mollify the griev'd Parts, that tho', when they rise out of their Beds, they would be so crippl'd, that they could scarce stand : Yet after this was done half an Hour, they would be able to go (and go they must) to Wood, thro' the Snow, to the Ship, and about other Business. By Night, they would be as bad again ; and then they must be bathed, anointed, and their Mouths dress'd again, before they went to Bed. And with this Diet, and in this Manner, we went thro' our Miseries.

I was always afraid, that we should be weakest in the Spring ; and therefore I reserv'd a Tun of *Alicant* Wine unto this Time. Of this, by putting

ting seven Parts of Water, to one of Wine, we made some weak Beverage : Which, by Reason that the Wine had been frozen, had lost his Vertue, was little better than Water. The sicker Sort had a Pint of Alicant a Day, by itself ; and of such poor Aqua vitæ too, as we had, they had a little Dram allow'd them next their Hearts every Morning : And thus we made the best Use of what we had, according to the Seasons.

May 1632. The first, we went aboard betimes to heave out the Ice.

The 2d, it did snow and blow, and was so cold, that we were forc'd to keep House all Day. This unexpected Cold, at this Time of the Year did so vex our sick Men ; that they grew worse and worse : We cannot now take them out of their Beds, but they would swoon : And we had much ado, to keep Life in them.

The 3d, those that were able, went aboard betimes to heave out the Ice. The Snow was now melted in many Places upon the Land, and stood in Plashe : And now there came some Cranes, and Geese to it.

The 4th, while the rest wrought aboard, I and the Surgeon went with a Couple of Pieces, to see if we could kill any of these Fowl for our sick Men, but never did I see such Wild Fowl : They would not indure to see any Thing move. Wherefore we return'd within two Hours, not being able to indure any longer stalking through the Snow, and the wet Plashe. I verily thought that my Feet and Legs would have fallen off, they so tormented me with aching.

The 6th, *John Wardon*, the Master of my Ship's chief Mate died, whom we buried in the Evening, in the most Christian-like Manner we

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could, upon the Top of a bare Hill of Sand ; which we call'd *Brandon Hill*.

The Weather continu'd very cold ; freezing so hard in a Night, that it would bear a Man.

By the 9th, we were come to, and got up our five Barrels of Beef and Pork, and had found four Butts of Beer, and one of Cider, which God had preserv'd for us : It had lain under Water all the Winter ; yet we could not perceive that it was any Thing the worse. God make us ever thankful for the Comfort it gave us.

The 10th, it snow'd and blew so cold, that we could not stir out of the House ; yet nevertheless by Day the Snow vanisheth away apace on the Land.

The 11th, we were aboard betimes, to heave out Ice. By the 12th, at Night, we had cleared out all the Ice, out of the Hold, and found likewise our Store-Shoes, which had lain soak'd in the Water all the Winter ; but we dried them by the Fire, and fitted ourselves with them. We struck again our Cables into the Hold ; there stood a But of Wine also, which had been all the Winter on the upper Deck, and continu'd as yet, all firm frozen. We fitted the Ship also, making her ready to sink again, when the Ice broke up. We could hitherto find no Defect in her ; and therefore well hop'd that she was stanch. The Carpenter, nevertheless, argu'd to the contrary ; alledging, that now she lay on the Ground, in her Dock, the Ice had fill'd her Defects, and that the Ice was the Thing that kept out the Water ; but when she should come to labour in the Sea, she would certainly open. And indeed we could now see quite thro' her Seams, betwixt Wind and Water. But that
which

which troubl'd us most, was the Loss of her Rudder, and she now lay in the very Strength of the Tide : Which, whenever the Ice drove, might tear her in Pieces. But we still hop'd the best.

The 13th, being the *Sabbath* Day, we solemnized it ; giving God Thanks for those Hopes and Comforts we daily had : The Weather in the Day-time was pretty warm ; but it froze by Night ; yet now we could see some Land.

The 14th, we began a new Sort of Work. The Boatswain, and a convenient Number sought ashore the rest of our Rigging, which was much spoil'd by pecking it out of the Ice, and this they now fell to fitting. I set the Cooper to fit our Cask, altho', poor Man, he was very infirm ; my Intent being, to pass some Cables under the Ship, and so to buoy her up with these Casks ; if we could not get her off otherwise. Some others, I order'd to go see, if they could kill some Wild Fowl for our sick Men, who now grew worse and worse. But this is to be remembered, that we had no Shot, but what we made of the Aprons of our Guns, and some old Pewter that I had ; for the Carpenters Sheet Lead, we durst not use.

The 15th, I manur'd a little Patch of Ground that was bare of Snow, and sow'd it for Pease ; hoping to have some shortly to eat ; for as yet we could find no green Thing to comfort us.

The 18th, our Carpenter *Willam Cole* died, a Man belov'd of us all ; as much for his innate Goodness, as for the present Necessity we had of a Man of his Quality. He had indur'd a long Sickness, with much Patience, and made a very godly End. In the Evening, we buried him by Mr. *Wardon*, accompanied with as many as could

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go ; for three more of our principal Men lay then expecting a good Hour. And now were we in the most miserable State, that we were in all the Voyage. Before his extreme Weakness, he had brought the Pinnace to that Pass, that she was ready to be boulded, &c. and to be joyn'd to receive the Plank ; so that we were not so discourag'd by his Death, but that we hop'd ourselves to finish her ; if the Ship prov'd unserviceable.

This Pinnace was 27 Foot by the Keel, 10 Foot by the Beam, and 5 Foot in the Hold : She had 17 Ground Timbers, 34 principal Staddles, and 8 short Staddles. He had contriv'd her with a round Stern, to save Labour ; and indeed she was a well proportion'd Vessel. Her Burthen was 12 or 14 Tons.

In the Evening, the Master of our Ship, after the Burial, returning aboard, and looking about her ; discover'd some Part of our Gunner, under the Gun Room Ports. This Man, we had committed to the Sea, at a good Distance from the Ship, and in deep Water, near Six Months before.

The 19th, in the Morning, I sent Men to dig him out, he was fast in the Ice, his Head downwards, and his Heel upward, for he had but one Leg, and the Plaister was yet at the Wound : In the Afternoon, they had digg'd him clear out ; and he was as free from Noisomeness, as when we first committed him to the Sea. This Alteration had the Ice and Water, and Time only wrought on him, that his Flesh would slip up and down upon his Bones, like a Glove on a Man's Hand. In the Evening, we buried him by the others. This Day, one *Geo. Ugganes*, who could handle a Tool best of us all, had pretty well repair'd our Boat, and so we ended

this

this mournful Week. The Snow was by this Time pretty well wasted in the Woods ; and we having a high Tree, on the highest Place of the Island, which we call'd our Watch-Tree ; from the Top of it we might see into the Sea, but found no Appearance of breaking up yet.

This 20th, being *Whitsunday*, we sadly solemnized it, and had some Taste of the Wild Fowl, but not worth the writing.

The 21st, was the warmest Sun-shine Day, that came this Year. I sent two a fowling, and myself, the Master, Surgeon, and one more, with our Pieces and Dogs, we went into the Woods to see what we could find. We wandered from the House 8 Miles, and search'd with all Diligence ; but return'd comfortless, not an Herb nor Leaf eatable, could we find. Our Fowlers had as bad Success. In the Woods, we found the Snow partly wasted away, so that it was passable. The Ponds were almost unthaw'd, but the Sea we could see firm frozen.

The Snow does not melt away here with the Sun or Rain, and so make Land Floods, as in *England* ; but is exhal'd by the Sun, and suck'd full of Holes, like Honey-combs ; so that the Sand whereon it lies will not be at all wetted. The like Observation we also made, that let it rain ever so much, you shall see no Land Floods after it.

The 22d, we went aboard the Ship, and found she had made so much Water, that it was risen above the Ballast, which made us doubt again of her Soundness. We fell to pumping, and pump'd her quite dry. And now by Day sometimes, we have such hot Glooms, that we cannot endure in the Sun, and yet in the Night it would freeze very hard. This Unnaturalness of the Season,

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tormented our Men, that they now grew worse and worse daily.

The 23d, our Boatswain, a painful Man, having been long sick, which he had heartily resisted, was taken with such a painful Ach in one of his Thighs, that we verily thought he would have died presently. He kept his Bed all Day in great Extremity, and it was a Maxim among us, that if any one kept his Bed two Days, he could rise no more. This made every Man to strive to keep up, for Life.

The 24th was very warm Sun-shine, and the Ice consum'd by the Shore's Side, and crack'd all over the Bay, with a fearful Noise. About three in the Afternoon, we could perceive the Ice with the Ebb to drive by the Ship. Whereupon I sent two, with all Speed to the Master, with Order, to beat out the Hole, and to sink the Ship; as likewise to look for the Rudder betwixt the Ice. This he presently performed, and a happy Fellow, one *David Hammon*, pecking betwixt the Ice, struck upon it, and it came up with his Lance; who crying that he had found it, the rest came and got it up on the Ice, and so into the Ship. In the mean Time, with the little Drift that the Ice had, it began to rise and mount into high Heaps against the Shoal Shores, and Rocks, and likewise against the Heap of Ice, which we had put for a Barricado to our Ship; but with little Harm to us; yet we were forc'd to cut away 20 Fath. of Cable, which was frozen in the Ice. After an Hour, the Ice settled again, not having any Vent outwards. Oh! this was a joyful Day to us all, and we gave God Thanks for the Hopes we had of it.

The

The 25th, was a fine warm Day, and with the Ebb the Ice drove against the Ship, and shook her soundly.

The 26th, I took the Chirurgeon with me, and went again to wander the Woods, and went to that Bay, where last Year we had lost our Man *John Barton*. But we could find no Sign of him, nor of other Relief.

By the 28th, it was pretty clear, betwixt the Ship and the Shore, and I hop'd the Ice would no more dangerously oppress us. Wherefore I caus'd the lower Hole to be firmly stop't; the Water then remaining three Foot above the Ballast.

The 29th, being Prince *Charles's* Birth Day, we kept Holy Day, and display'd his Majesty's Colours, both on Land and Aboard, and nam'd our Habitation, *Charles Town*; by Contraction, *Charlton*: and the Island, *Charlton Island*.

The 30th, we lanch'd our Boat, and had Intercourse sometimes betwixt the Ship and the Shore by Boat, which was News to us.

The last of this Month, we found on the Beach some Vetches, to appear out of the Ground; which I made Men to pick up, and boil for our sick Men.

This Day, we made an End of fitting all our Rigging and Sails; and it being a very hot Day, we dried, &c. our Fish in the Sun, and air'd all our other Provisions. There was not a Man of us at present, able to eat of our Salt Provisions, but myself, and the Master of my Ship. It may be remembred, that all this Winter we had not been troubl'd with any Rheums, nor phlematick Diseases. All this Month the Wind hath been variable, but for the most Part Northerly.

June

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June 1632. The four first Days, it snow'd, hail'd, and blew very hard, and it was so cold, that the Ponds of Water froze over, and the Water in our Cans froze in the very House; our Cloaths also that had been wash'd and hung out to dry, did not thaw all Day.

The 5th, it continu'd blowing very hard on the Broad Side of the Ship, which made her swag and wallow in her Dock, notwithstanding she was sunk, which shook her very much. The Ice withal drove against her, and gave her many fearful Blows. I resolv'd to endeavour to hang the Rudder; and when God sent us Water, notwithstanding the Abundance of Ice that was yet about us, to have her further off: In the Afternoon, we under-run our small Cable to our Anchor, which lay astern in deep Water; and so with some Difficulty got up our Anchor. This Cable had lain slack under Foot, and under the Ice, all the Winter; and we could never have a clear Slatch from Ice, to have it up, before now; we found it not a Jot the worse. I put some to make Colrakes, that they might go into the Water, and rake a Hole in the Sands to let down our Rudder.

The 6th, we went about to hang it, and our young lustiest Men took it by Turns, to go into the Water, and to rake away the Sand; but they were not able to indure the Cold half a Quarter of an Hour, it was so mortifying; yea, use what Comforts we could, it would make them swoon and die away. We brought it to the Stern Post; but were then forc'd to give it over, being able to work at it no longer. Then we plugg'd up the upper Holes aboard, and fell to pumping the Water out of her again.

The

The 7th, we wrought about our Rudder, but were again forc'd to give over; and to put our Cables over-board, with Messengers unto them, the Anchor lying to that Pass, that we might keep her right in her Dock, when we had brought her light.

By the 8th, at Night, we had pump'd all the Water out of her; and she a High Water would float in her Dock, tho' she were still dock'd in the Sands, almost 4 Foot. This made us consider what was to be done. I resolv'd to heave out all the Ballast, for the Bottom of her being so soak'd all the Winter, I hop'd was so heavy, that it would bear her. If we could not get her off that Way, I then thought to cut her down to the lower Deck, and take out her Masts; and so with our Casks to buoy her off.

The 9th, betimes in the Morning, we fell to Work. We hoisted out our Beer and Cyder, and made a Raft of it, fastening it to our Shore-Anchor. The Beer and Cyder sunk presently to the Ground, which was nothing strange to us; for any Wood or Pipe Staves that had lain under the Ice all the Winter, would also sink down as soon as ever it was heav'd overboard: This Day we heav'd out 10 Ton of Ballast. And here I am to remember God's Goodness towards us, in sending those foremention'd green Vetches. For now our feeble sick Men, that could not for their Lives stir these 2 or 3 Months, can indure the Air and walk about the House; our other sick Men gather Strength also: And it was wonderful to see how soon they were recover'd. We used them in this Manner: Twice a Day we went to gather the Herb, or Leaf of these Vetches, as they first appear'd out of the Ground; then we wash'd and boil'd them, and so with Oil and Vinegar,

Vinegar, that had been frozen, we eat them: It was an excellent Sustainance and Refreshing; the most Part of us eat nothing else. We likewise bruis'd them, and took the Juice of them, and mix'd it with our Drink; we eat them raw also, with our Bread.

The 11th, was very warm Weather, and we hung our Rudder. The Tides now very much deceiv'd us; for a Northerly Wind would very little raise the Water. This made us doubt of getting off our Ship.

The 13th, I resolv'd to know the Latitude of this Place; so, having examin'd the Instruments, and practis'd about it this Fortnight, I now found it to be in 52 Deg. and 3 Min.

The 14th, we had heav'd out all the Ballast, and carried all our Yards, and every Thing else of Weight ashore, so that we now had the Ship as light as possible it could be.

The 15th, we did little but exercise ourselves. By this Time, our Men that were most feeble, are now grown strong, and can run about. The Flesh of their Gums became settled again, and their Teeth fasten'd; so that they can eat Beef with their Vetches.

This Day, I went to our Watch-Tree; but the Sea, for any Thing I could perceive to the contrary, was still firm frozen, and the Bay we were in, full of Ice; having no Way to vent it.

The 16th, was wondrous hot, with some Thunder and Lightning; so that our Men went into the Ponds ashore, to swim and cool themselves; yet the Water was very cool still. Here had lately appear'd divers Sorts of Flies; as Butterflies, Butchers-flies, Horse-flies; and such an infinite Number of blood-thirsty Muskitoes, that
we

we were more tormented with them, than ever we were with the cold Weather. These, I think, lie dead in the old rotten Wood all the Winter, and in Summer they revive again. Here are likewise an infinite Company of Ants, and Frogs in the Ponds, upon the Land ; but we durst not eat of them ; they look'd speckled like Toads. By this Time there are neither Bears, Foxes nor Fowl to be seen : they are all gone.

The 17th, the Wind came Northerly, and we expecting a high Tide, in the Morning betimes, put out our small Cable astern, out at the Gun Room Port ; but the Morning Tide we had not Water by a Foot. In the Evening, I had laid Marks, by Stones, &c. and I thought the Water flow'd apace. Making Signs therefore for the Boat to come ashore, I took all that were able to do any Thing with me aboard ; and at High Water, altho' she wanted something to rise clear out of her Dock, yet we heav'd with such a good Will, that we heav'd her thro' the Sand into a Foot and a half deeper Water ; and further we durst not yet bring her, for the Ice was all thick about us. After we had moor'd her, we went all to Prayers ; and gave God Thanks, that he had given us our Ship again.

The 18th, we were up betimes ; the Cooper, and some with him, to fill fresh Water ; myself, with others, to gather Stones at Low Water ; which we piling up in a Heap, at High Water, the Cockswain and his Gang, fetch'd them aboard ; where the Master with the rest stowed them. The Ship at Low Water had a great Lust to the Offing ; by which Means we could the better come and stop the two upper Holes firmly : After which, we fitted other convenient Places, to make others to sink her, if Occasion were.

The

The 19th, we were all up betimes to work, as afore specified: These two Days, our Ship did not float; and it was a happy Hour, when we got her off, for we never had such a high Tide all the Time we were here. In the Evening, I went up to our Watch-Tree; and this was the first Time I could see any open Water, any way, except that little by the Shore Side, where we were. This put us in some Comfort, that the Sea would shortly break up, which we knew must be to the Northward; seeing that Way we were certain, there were above 200 Leagues of Sea.

The 20th, we labour'd as aforesaid. The Wind at N. N. W. The Tide rose so high, that our Ship floated, and we drew her further off, into into a Foot and a half deeper Water. Thus we did it by little and little; for the Ice was still wonderful thick round about us.

The 22d, there drove much Ice about us, and within us, and brought Home our Stern-Anchor. At High Water, notwithstanding all the Ice, we heav'd our Ship further off; that so she may lie afloat at Low Water.

The next Low Water, we founded all about the Ship; and found it very foul Ground, we discover'd Stones 3 Foot high, above the Ground, and two of them within a Ship's Breadth of the Ship; whereby did more manifestly appear God's Mercies to us; for if when we forc'd her ashore, she had struck one Blow against those Stones, it had bulg'd her. Many such Dangers were there in this Bay; which we now first perceiv'd, by the Ice's grounding and rising against them. In the Evening, we tow'd off the Ship, unto the Place she rid the last Year, and there moor'd her. Sheering the Ship, Night and Day, Flood and
Ebb,

Ebb, among the dispers'd Ice that came athwart of us.

The 23d, we labour'd in fetching our Provisions aboard: Which to do, we were forc'd to wade to carry it to the Boat a full Flight Shot; and all by Reason the Wind was Southerly. This Morning, I took an Observation of the Moon's coming to the S. by a Meridian Line of 120 Yards long, which I had rectified many Weeks before-hand.

The 24th, I took another Observation of the Moon's coming to the Meridian; for which I refer you to Observations in the latter End of this Journal.

I had formerly cut down a very high Tree, and made a Cross of it: To it, I now fasten'd uppermost the King and Queen's Pictures, drawn to the Life; and doubly wrapt in Lead, and so close, that no Weather could hurt them. Betwixt both these, I affix'd His Majesty's Royal Title: *viz.* Charles the First, King of England, Scotland, France and Ireland: *As also of Newfoundland, and of these Territories, and to the Westward, as far as to Nova Albion, and to the Northward to the Lat. of 80 Deg. &c.*

On the Outside of the Lead, I fasten'd a Shilling, and a Six Pence of His Majesty's Coin: Under that, we fasten'd the King's Arms, fairly cut in Lead; and under that, the Arms of the City of *Bristol*. And this being Midsummer-Day, we rais'd it on the Top of the bare Hill, where we had buried our dead Fellows; formally by this Ceremony taking Possession of these Territories, to His Majesty's Use.

The Wind continuing Southerly, and blowing hard, put all the Ice upon us; so that the Ship now rid among it, in such apparent Danger,
that

that I thought verily we should have lost her. We labour'd, Flood and Ebb, both with Poles and Oars, to heave away and part the Ice from her. But it was God that protected and preserv'd us; for it was past any Man's Understanding, how the Ship could indure it, or we by our Labour save her. In the Night, the Wind shifted to the Westward, and blew the Ice from us; whereby we had some Rest.

The 25th, in the Morning, the Boatswain with a convenient Crew with him, began to rig the Ship; the rest fetching our Provisions aboard. About 10 o'Clock, when it was something dark, I took a Lance in my Hand; and one with me with a Musket and some Fire, and went to our Watch-Tree, to make a Fire on the eminentest Place of the Island; to see if it would be answered: Such Fires I had formerly made to have Knowledge, if there were any Savages on the Main, or the Islands about us. Had there been any, my Purpose was to have gone to them, to get some Intelligence of some Christians, or some Ocean Seas thereabouts. When I was come to the Tree, I laid down my Lance, and so did my Confort his Musket; whilst I myself climb'd up to the Top of the Tree, I order'd him to put Fire to some low Tree thereabouts. He, unadvisedly, put Fire to some Trees that were to Windward; so that they, and all the rest too, by Reason it had been very hot Weather, being dry, took Fire like Flax or Hemp; and the Wind blowing the Fire towards me, I made Haste down the Tree. But before I was half Way down, the Fire took in the Bottom of it, and blaz'd so fiercely upwards, that I was forc'd to leap off the Tree, and down a steep Hill; and, in short, with much ado, escap'd burning.

ing. The Moss on the Ground was as dry as Flax, and it ran most strangely, like a Train along the Earth. The Musket and Lance were both burnt. My Consort at last came to me, and was joyful to see me; for he thought verily I had been burnt. And thus we went homeward together, leaving the Fire increasing, and burning most furiously. I slept but little all Night after; and at Break of Day, I made all our Powder and Beef, to be carried aboard. This Day, I went to the Hills, to look to the Fire; where I saw it still burn most furiously, both to Westward, and Northward: Leaving one upon the Hills to watch it, I came Home immediately, and made them take down our new Suit of Sails, and carry them to the Sea Side, ready to be cast in, if Occasion were, and to make Haste to take down our Houses. About Noon, the Wind shifted Northerly; and our Sentinel came running Home, bringing us Word that the Fire follow'd him at his Heels, like a Train of Powder. There was no Occasion to bid us to take down and carry all to the Sea Side. The Fire came towards us with a most terrible rattling Noise; bearing a full Mile in Breadth; and by that Time we had uncover'd our Houses and going to carry away our last Things, the Fire was come to our Town, and seiz'd it; and, in a trice burnt it down to the Ground. We lost nothing of any Value, for we had brought all away into a Place of Security. Our Dogs, in this Combustion, would sit down on their Tails, and howl, and then run into the Sea, on the Shoals, and there stay. The Wind shifted Easterly, and the Fire rang'd to the Westward, seeking what it might devour. This Night, we lay altogether
H
aboard

aboard the Ship, and gave God Thanks, who had been thus merciful unto us.

The 27th, 28th, and 29th, we wrought hard, in fetching our Things aboard, as likewise our Water, which we must tow off with the Ebb, and bring it to the Ship with the Flood: Moreover we must go about the Eastern Point for Drift Wood; for the Tools were all so spent, that we could cut none. Therefore, about three Days ago, I had caus'd our Pinnace to be saw'd to Pieces, and with that we stow'd our Cask, intending to burn it at Low Water, and such other Times, as we could not work in carrying Things aboard. I employ'd the Men in fetching Stones, and we built three Tombs over our three dead Fellows; filling them with Sand in a decent and handsome Fashion. The least Tomb, had two Tons of Stones about it.

The 30th, we most earnestly continu'd our Labour, and brought our Sails to Yard; and by 11 o'Clock at Night had made a pretty Ship; meaning to have finish'd our Business with the Week and the Month, that so we might the better solemnize the Sabbath ashore to Morrow, and so take Leave of our wintering Island.

The Wind had been variable a great While, and the Bays so clear of Ice, that we could not see a Piece of it; for it was all gone to the Northward. Hoping that it may give Content to some Readers, I will relate the Manner of the breaking of it up. It is first to be noted, that it doth not freeze naturally above 6 Foot; the rest, is by Accident. Such is that Ice that you may see here, 6 Fath. thick. This we had manifest Proof of, by our digging the Ice out of the Ship; and by digging to our Anchors, before the Ice broke up.

In *May*, when the Heat increaseth, it thaws first on the Shoal by the Shore Side ; which when it hath done round about, then the Courses of the Tides, as well by the Ebb and Flood, as by their Rising and Falling, do so shake the main Ice, that it cracks and breaks it. Thus, when it hath got Room for Motion ; then runs one Piece of it upon another, and so bruises and grinds itself against the Shoals and Rocks, that it breaks so, that a Ship may pass thro' it. Besides this ; much of it is thrust upon the Shoals, where it is consum'd by the Heat of the Sun. The Season in this Climate, is most unnatural ; for in the Day Time, it will be extreme hot ; yea intolerable, by Reason it is a sandy Country. In the Night again, it will freeze an Inch thick in the Ponds, and in the Tubs about and in our House : And all this, towards the latter End of *June*.

The Muskitoes upon our coming away, were most intolerable. We tore an old Flag in Pieces, and made us Bags of it to put our Heads in ; but it was no Fortification against them. They would find Ways and Means to sting us, that our Faces were swoln hard out in Pimples, which would so itch and smart, that we must needs rub and tear them. And these Flies, indeed, were more tormenting to us, than all the Cold we had heretofore endured.

July 1632. The 1st of this Month being *Sunday*, we were up betimes. And I caus'd our Ship to be adorn'd the best we could ; our Flag on the Poop, and the King's Colours in the main Top. I had provided a short Account of all the Passages of our Voyage to this Day : I likewise wrote in what State we were at present, and how I intended to prosecute the Discovery, both to

the Westward, and to the Southward, about this Island. This brief Discourse I had concluded, with a Request to any noble-minded Traveler that should take it down, or come to the Notice of it; that if we should perish in the Action, then to make our Endeavours known to our Sovereign Lord the King. And thus with our Arms, Drums and Colours, Cook and Kettle, we went ashore, and first we march'd up to our eminent Cross, adjoining to which we had buried our dead Fellows. There we read Morning Prayer, and then walk'd up and down till Dinner Time. After Dinner, we walk'd to the highest Hills, to see which Way the Fire had wasted. We descried, that it had consum'd to the Westward, 16 Miles at least, and the whole Breadth of the Island: Near our Cross and Dead, it could not come; by Reason it was a bare sandy Hill. After Evening Prayer, I happen'd to walk along the Beach Side; where I found an Herb resembling Scurvy Grass. I had some gather'd, which we boil'd with our Meat to Supper. It was most excellent good, and far better than our Vetches. After Supper we all went to seek for more of it; which we did, to the Quantity of two Bushels, which did afterwards much refresh us: And now the Sun was set, and the Boat come ashore for us: Whereupon we assembl'd ourselves together, and went up to take the last View of our Dead, and to look unto their Tombs, and other Things.

So fastening my Brief, which was securely wrapp'd up in Lead, to the Cross, we presently took Boat and departed, and never put Foot more on that Island. This Island, and all the rest, as likewise the Main, is a light white Sand; cover'd over with a white Moss, and full of Shrubs

Shrubs and low Bushes ; excepting some bare Hills, and other Patches. In these bare Places, the Sand will drive with the Wind like Dust. It is very full of Trees, as Spruce and Juniper ; but the biggest Tree I saw, was but a Foot and a half over. At our first coming hither we saw some Deer and kill'd one, but never any since. Foxes, all the Winter we saw many, and kill'd some Dozen of them ; but they went all away in *May*. Bears we saw a few, but kill'd none ; we saw some other little Beasts. In *May* there came some Fowl, as Ducks and Geese ; of which we kill'd very few. White Partridges we saw, but in small Quantities ; nor had we any Shot to shoot at them. Fish, we could never see any in the Sea, nor no Bones of Fish on the Shore Side, excepting a few Cockle Shells, and yet nothing in them neither. Other Things remarkable I have before mention'd.

Our Discovery, and Return Home.

SUNDAY, being the Second of *July* 1632. we were up betimes, about Stowing and Fitting our Ship, and Weighing of our Anchors, which when the last was a-trip, we went to Prayer, beseeching God to continue his Mercies to us, and rendering him Thanks for having thus restor'd us. Our Ship we found no Defect in ; we had Abundance of such Provisions, as we brought out of *England* ; and we were in indifferent Health, and gather'd Strength daily. This being done, we weigh'd, and came chearfully to sail. The Wind at N. W. bad to get away. Wherefore we stood over to *Danby* Island, to take in more Wood ; and there to be ready to

take the Opportunity of a fair Wind. I went ashore with the Boat, for some of the Company had told me, they had seen some Stakes the last Year driven into the Ground. When we came ashore, whilst some gather'd Wood, I went to the Place ; where I found two Stakes, drove into the Ground a Foot and half, and Firebrands, where a Fire had been made by them. I pull'd up the Stakes, which were about the Bigness of my Arm ; and they had been cut sharp at the Ends, with a Hatchet, or some other good Iron Tool, and driven in as it were with the Head of it. They were distant about a Stone's Throw, from the Water Side. I could not conceive, to what Purpose they should be there set ; unless it were for some Mark for Boats. This did augment my Desire, to speak with the Savages ; for without Doubt they could have given Notice of some Christians, with whom they had some Commerce. About 4, in the Evening, I return'd aboard with a Boat's Lading of Wood : And the Wind something favouring, we weigh'd ; with our Lead seeking out a Channel amongst these dangerous Shoals. In the Evening, the Wind opposing itself ; we came to Anchor betwixt *Charlton* Island, and that Island we nam'd the last Year, in Memory of that Honourable Gentleman, Master *Thomas Cary*, one of the Bed-Chamber to the King, *Cary's Island* ; where we rid all Night.

The 3d, at Break of Day, we weigh'd with a bare Wind, and sounding up and down for a Channel ; we were many Times in 5 and 4 Fathom Water. The Wind larging upon us, we stood away West ; by Noon, we saw all the Ice Northward of us. Indeavouring, therefore, to compass about the Western Point of *Charlton* Island ;

Island ; and so to seek to the Southward. We found it all Shoals, Rocks and Breaches. By 4 in the Afternoon, we saw the Western Land ; but all full of Ice : Whereupon, as the Wind favour'd us, we stood along it in Sight to the Northward.

The 4th was calm, but so very thick Fog withal, that we could not see a Pistol Shot about us. Wherefore we came to an Anchor, and there rid all this Day, and the next Night.

The 5th, at Three in the Morning, we weighed ; but the Ice being all about us, we knew not which Way to turn us. Now, to avoid telling the same Thing twenty Times, we were continually, till the 22d, so pester'd and tormented with Ice, that it would seem incredible to relate it ; sometimes we were so blinded with Fog, that we could not see about us : And we did so strike against the Ice, that the fore Part of the Ship would crack again ; and make our Cook and others to run up all amaz'd, and think the Ship had been beaten all to Pieces. Indeed, we did hourly strike such unavoidable Blows, that we left the Hatches open, and twenty Times in a Day, the Men would run down into the Hold, to see if she were bulg'd.

Sometimes, when we had made her fast in the Night, to a great Piece of Ice ; we should have such violent Storms, that our Fastening would break, and then the Storm would beat us from Piece to Piece most fearfully. Other Times we should be fast inclosed among great Ice, as high as our Poop. This was made, as I have formerly said, by one Piece running upon another ; which made it draw 8 or 10 Fath. Water. Besides which, the lowermost would rise from underneath, and strike us under the Bulge, with

Pieces of 5, 6, yea of 8 Tuns, that many times we have pump'd clear Water for an Hour together, before we could make the Pump suck. Among these several and hourly Dangers, I overheard the Men murmur, and say, that they were happy that I had buried; and that if they had a Thousand Pounds they would give it, so they lay fairly by them; for we, say they, are destin'd to starve upon a Piece of Ice. I was forc'd to suffer all this with Patience, and to comfort them again, when I had them in a better Humour.

The 22d, having been vex'd with a Storm all last Night, and this Morning with a thick Fog, we drove in 13 Fath. Water. About Noon, it clear'd, and we saw the Land; and at that Instant had a good Observation, whereby we knew it to be Cape *Henrietta Maria*. I made the Master stand in with it, and in the mean Time we fitted a Cross, and fasten'd the King's Arms, and the Arms of the City of *Bristol* to it: We came to an Anchor within a Mile of the Shore, in 6 Fath. Water; so we hoist'd out our Boat, and took our Arms and our Dogs, and went ashore. Upon the most eminent Place we erected the Cross; and then seeking about, we soon saw some Deer, and by and by more and more. We stole to them with the best Skill we had, and then put our Dogs on them; but the Deer ran clear away from them at Pleasure. We tir'd the Dogs, and weary'd ourselves, but to no Purpose; neither could we come to shoot at them. I saw in all, about a Dozen, old and young, very goodly Beasts. We took half a Dozen young Geese, on the Pools, by wading into them; and so return'd to our Boat vex'd, that we had found a Place where there was Refreshment, and we could get none of it. Whereas, we had kept our
Dogs

Dogs, with a great Deal of Inconvenience aboard the Ship, all the Winter, and had pardoned them many Misdemeanors ; (for they would steal our Meat out of the Steeping Tubs) in Hopes they might hereafter do us some Service ; and seeing they now did not, and that there was no Hope they could hereafter, I caus'd them to be left ashore. They were a Dog and a Bitch ; Buck Dogs, of a very good Breed. The Dog had a Collar about his Neck, which perhaps hereafter may come to Light. I saw no Sign of any Savages, nor could we find any Herbs or other Refreshment here.

In the Evening, being return'd aboard, and the Wind blowing fair at S. I caus'd the Master to weigh, and come to Sail, and to lose no Time. For we hop'd for an open Sea to the N. W. This Cape has a very Shoal Point that lies off it ; which we endeavour'd to compass about.

Sailing therefore among shatter'd Ice, we came to very Shoal Water, 4 and 5 Fath. deep, and could not avoid it. At Length standing N. the Water deepen'd ; but we came withal among great Pieces of Ice, which by Reason of some open Water, there was a pretty Sea. These hard Pieces of Ice made a most dreadful Noise. It prov'd a fair Moon-shine Night ; otherwise it had gone ill with us. We turn'd among this Ice, staying the Ship sometimes within her Length, of great Pieces, as bad as Rocks ; but by Reason we were often forc'd to bear up, we did sag upon the main Rand of Ice, and we thought it would be worse for us ; we let fall an Anchor, and stood all on the Decks to watch the Ice's sheering off the Ship, to and again, to avoid it. Thus having Poles and Oars to fend it,

it, we could not keep ourselves so clear, but many Pieces came foul of us. We broke two of our great Poles with it, which were made to be handl'd by four Men, besides some other Damages. At Break of Day, we weigh'd; and sought all Ways to clear ourselves of Ice; but it was impossible. I conceive it impertinent to relate every particular Day's Passages, which were much alike to us. Our Endeavours were sometime with our Sails, giving and receiving 500 fearful Blows in a Day. Sometimes, we would stop at an Anchor, when we could get a little open Water; and so suffer the Ice to drive to Leeward: Other Times, we should be inclos'd among it, and then it would so break, and rise, and leap up under us, that we expected every Hour to be beaten to Pieces.

Moreover, we should have such Storms in the dark Nights, that would break our Moorings we had made fast to some Piece of Ice for Security in the Night Season; and then we should beat most dangerously from Piece to Piece till Day-light, that we could see to make her fast again. I forbear to speak of thick Fogs which we had daily; which froze our Rigging Day and Night: Besides all which, we should come into most uncertain Depths; sometimes 20 Fath. next Cast 10, next 15; then 9, rocky foul Ground. The great deep Ice withal, driving on these uncertain Depths, did so distract the Tides, and deceive us so much in our Account, that by the 30th, we were driven back so far, to the Eastward, and to the Southward of the Cape; that at 5 o'Clock in the Evening, it bore N.W. of us some 3 Leag. off, contrary to our Expectations. With all these Mischiefs, our Ship is now become very leaky, that we must pump
every

ever Half Watch. Here I call'd a Consultation, and after considering all our Experience, we were of Opinion, that it was impossible to get to the Northward, or to the Eastward; by Reason of the Ice. Wherefore I resolv'd upon this Course: When the Wind blew S. it would blow the Ice off the S. Shore, then we would seek to get to the Westward, betwixt it and the Shore. I must confess, that this was a desperate Resolution; for all the Coast we knew to be shoal and foul Ground, all Rocks and Stones; so that if the Wind should shift to the Northward, there would be, without God's Mercies, little Hope of us. But here we must not stay; the Nights grew long, the Cold so increas'd, that betwixt the Pieces of Ice, the Sea would be frozen. I caus'd the Ship to be fitted, and Places convenient again prepar'd to sink her the second Time, if so be we were put to Extremities. We presently put our Project in Execution (the Wind being at S.) and got about the Shoals of the Cape; standing then into the Shore-ward, to get betwixt it and the Ice: We came into 4 Fath. Water, (very foul rocky Ground) thinking to come to an Anchor all Night, and let the Ice drive to Lee-ward. But still there was so much Ice betwixt us and the Shore, that we were forc'd to bear up among it into deeper Water, and to let the Ship drive among it. The Wind increasing, we endur'd a most dangerous dark Night of it. In the Morning we fell to Work, to get the Ship again out of the Ice into some clear Water, which we saw W. by S. of us. Some of our Company out upon the Ice, to heave her with their Shoulders, whilst others stood aboard with Poles. The rest stood to fill and spill the Sail. By 9 in the Morning, we had got into some clear Water, and stood

flood W. and by S. and into 4 Fath. Water, foul Ground. But being not able to weather some Rands of Ice, which did drive; we were forc'd to stand off again, and when the Evening grew dark, to come to an Anchor.

About Midnight, there came a great Piece of Ice, (which we could not avoid) athwart of our Cable, and made the Ship drive and drag her Anchor. This drove her into Shoal Water, it being very rocky and foul Ground. We brought the Cable to Capstang, and heav'd with such a Courage, that we heav'd Home our Anchor from under it. Thus we endeavour'd, the best we could, to keep ourselves in 8 and 10 Fath. Water. It then pleas'd God, that the Wind blew along the Shore; otherwise it had gone far worse with us.

August 1632. The 1st of this Month, at Break of Day, when we could see a little about us, we were forc'd to struggle again with the Ice, and to get in nearer to the Shoar. By Reason the Wind was opposite to come to an Anchor, we let the Ice drive to Leeward; hoping there was a clearing Sea to the Westward. The Ice drove very thick upon us, and one Piece came foul of us; which touch'd our Sprit-Sail Yard, and made the Ship drive; but we soon clear'd ourselves of it. Then we weigh'd, and stood in nearer to the Shore; but the Water shoal'd, and there were so many great Rands of Ice betwixt us and the Shore, that there was no coming to an Anchor. So we turn'd betwixt the Ice, many Pieces of it being aground in Shoal Water, and few Pieces distant one from the other a Cable's Length. This Day, we saw two Sea Morfes on the Ice.

The 2d, in the Morning, we were glad of the Break of Day; having most dangerously turn'd among the Ice, and endur'd many a heavy Blow. We stood in again to the Shoreward, to see if we could get some clear Water, for to the Northward it was all impassable Ice. We stood into 5 and 4 Fath. but still all incompass'd with Ice. So we stood off again into deeper Water; and in the Evening we were inclos'd among extraordinary great Pieces. It was a very thick Fog withal; so that we made fast the Ship to a great flat Piece, and went to sleep and refresh ourselves after our extreme Pains-taking.

The 3d, 4th, and 5th, we were inclos'd among very great Ice; and it blew such a Storm of Wind, that we endeavouring to get forward to the Westward, struck such heavy Blows, that made all the Fore Part of the Ship crack again. Then we would give over working and let her alone among it; but then the Ice would break and rise under us, and that would endanger us as bad as the former. Our Ship doth make above a Tun of Water every Watch, which we must pump out, beside our other Labour. God think on us, and be merciful unto us among all these Dangers.

The 5th, at Noon, we were in Lat. 55. 30. the Cape bearing off us S. E. by E. 12 Leagues off. And this all we have got since the 22d of July. All Night it blew a violent Gale of Wind, at W. N. W. and about Midnight, our Hawser, (by which we made fast to a Piece of Ice) broke, and we lost 14 Fath. of it. We beat all Night most fearfully, being tofs'd from Piece to Piece, because in the Dark, we durst not venture our Men to go on the Ice, for fear of losing them.

All

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All the 6th, the Storm continu'd, and drove us again, with the Ice, almost to the Cape.

The 7th, was the most comfortable Day we had, since we came out of our Wintering Place, the Wind came up fair at E. and we got, altho' with our former Inconveniencies and Dangers, nearer to the Shore, and into some open Water, making good Way to the Westward. Moreover, our Leak now stopt of its own Accord; so now we pump'd but little. We sail'd all Night; keeping good Watch on the Fore Castle; bearing up from one, and looffing for another.

Thus we did the 8th also, but then the Wind shifting to the N. W. it drove the Ice on the Shore, and we came to an Anchor in 8 Fathom Water. The main Ice, we had some two Miles to Windward of us; but the Set of the Tide kept it off from us. At Noon, we were in Latitude 55. 34. In the Evening, a Range of Ice drove upon us, which made us weigh, and stand in nearer the Shoar into 6 Fath. and there come to an Anchor. The Wind increas'ing about Midnight, the Ship drove, and was quickly in 5 Fathom Water; wherefore we let fall our Sheet-Anchor, and both held her. But what troubl'd us, was, we expected every Minute that the main Ice would come upon us; then there would be no Hope, but to be put ashore.

The 9th, in the Morning, we weigh'd our second Anchor, the Ice being within less than a Mile of us. About 8 in the Morning, a Point of it came foul of us; which we prevented, by weighing, and came to an Anchor in 3 Fath. and a Half Water. The Wind continu'd N. N. W. which was in on the Shoar. This Morning, I caus'd all our empty Casks to be fill'd with
Water,

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Water, and the Ship to be left unpump'd, and the Place look'd to, that we had prepar'd to sink her. For we were at present in as apparent Danger, as any Time this Voyage; and to our great Grief it was all foul rocky Ground. The Danger of this was, if we made fast to a Piece of Ice that drew deep Water; then, as soon as it came to Ground on the Rocks, it would break all to Pieces, and betray us to our Destruction. About Noon, there came foul of us the Point of a Range of Ice, which we resolv'd to indure the Extremity of, with an Anchor, thinking to ride and break thro' it, we now perceiving some open Water beyond it. Thrusting therefore, and sending with our Poles; at last a great Piece came athwart our Hawser, and there went a pretty Sea among it. The Ship now fell upon it so violently, that I expected every Blow, she would beat out her Bows. At length, she drove with it, so that I thought the Cable had been broke. We brought it to Capstang to heave it in, but found that our Sheet-Anchor was broken in the Middle of the Shank. We presently set our Sails thereupon, endeavouring that Way to edge in among the Ice off of this dangerous Shore. It pleas'd God to favour our Labour so, that by 8 in the Evening we got off into 7 Fath. and a dark Night coming on, we made fast to the biggest Piece we could find. It blew fairly all Night, but about Midnight, the Wind came up at N. which was more on the Shore than before. By Break of Day, on the 10th, we were driven into 4 Fath. very foul Ground; so that the Lead fell off the Rocks 3 or 4 Foot, we set our Sails, and us'd our utmost Endeavours to edge off. Some of us went upon the Ice to hale her, others stood with Poles to thrust by Night. At Night
we

we got off, into 8 Fath. and made fast to the biggest Piece we could find. If any Man should ask, Why we now kept so near the Shore, in this continual Danger? I answer, because in the Offing, the Ice was so extraordinary thick, that we could make no Way thro' it. Moreover, when we were in that great thick Ice, and the Wind came up fair at S. or S. E. or E. we could not get out of it. Therefore we chuse to run this Adventure; and so prevent and overcome all Dangers, *with God's Assistance, and our extreme Labour.*

The 11th, in the Morning, was a thick Fog; yet there sprung up a Gale of Wind at E; and we made in for the Shore.

From the 11th to the 14th, the Wind continued fair, and we made all the Sail we could, Night and Day, as the Ice would suffer us. We had the Shore in Sight by Day, on one Side, and the Ice within 2 Miles, on the other, and we sail'd among dispers'd Pieces; looffing for one, and bearing up for another.

The 14th, at Noon, we were in Lat. 57. 55. In the Evening, we were imbay'd in Ice, and stood S. W. to clear ourselves of it, but could not. But seeing from Top-Mast Head clear Water over it, we put into it; but there arose a very thick Fog, and Night came on withal, that we were forc'd to fasten to a Piece of Ice, expecting Day and better Weather.

The 15th, in the Morning, although the Fog was very thick, we endeavour'd to get out of the Ice, and stood away W. but within 2 Hours the Water shoal'd from 40 Fath. to 25; whereby we knew that we had the Shoaling of the Western Shore. Then we shap'd our Course to the Northward; the Fog continuing so thick, that we

we could not see a Pistol-shot about us. We had not stood this Way two Hours, but we heard a Rut of the Ice a Head of us, which made the most hideous Noise, of any we had heard this Voyage. We hal'd our Tacks aboard, and stood to the Westward, in this Day Darknes: Hearing of it sometimes, and seeing it sometimes; which was very large, deep, and high Ice, above the Water. We weather'd it all, except some few Pieces, and got into open Water. About Sunset, there came a sudden Gust at N. N. W. and before we could handle our Sails, it was with us, and put us into some Trouble. It dally'd with us by Gusts, till 9 o'Clock; and then it fell into a most violent Storm. We consider'd where we might have the clearest Drift, and so took in all, and let her drive, her Head to the Shoreward. Before Midnight, the Water shoal'd on us, to 15 Fath. Then we turn'd her Head to the Eastward, and set our main Course low set, but as much as she could bear. The Water deepen'd but little, and we knew that we were on those Rocky Shoals, which we struck on the last Year. *God be merciful unto us.* Here was the first great breaking Sea we had this Year.

The 16th, in the Morning, we were driven to a great Rand of Ice; to avoid which, we set our Fore-Course to, and stood to the Shoreward, in 13 Fath. Water; and then about again. We stood in a Mile to the Ice, but there went a great swelling Sea in it, that it was not durable; so we stood out again. About 3, in the Afternoon, the Storm broke up, and blew fair at N. W. which produc'd Good for us; for we had not Drift for 4 Hours: Besides, it was but two Leag. betwixt the Shoals and the Ice. We set

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all our Sails, and endeavour'd to weather the Ice ; but in the Evening we were still pester'd with it. By Midnight, we knew not which Way to turn, nor what to do ; so we took in all our Sails, and let her drive among it. The Ice beat us on every Side, for there went among it a very great full Sea.

The 17th, in the Morning, when we could see about us, we were in the Midst of it ; but in the last Storm it was all broken into Pieces, as big as a Boat of 3 or 4 Tun, which gave us many a heavy Blow in the dark Night. If this Storm had taken us among it, it had beaten us all to Pieces, *without God's miraculous Preservation.* We made Sail, and endeavour'd to clear ourselves of it to the Northward, which by 8 in the Morning, we had done.

We then went to Prayer, and *gave God hearty Thanks*, that had deliver'd us out of it. For we were hourly, for the Space of Six Weeks, as it were in the Jaws of Death ; yea, never any that I have heard of have been so long, in such long Nights, upon a foul Shore, tormented with Ice, as we have been. At Noon, we were in Latitude 58. 20.

Now, as touching the Dissolution of the Ice, we found, that this Storm had torn and shattered this Rand of Ice, which was on the Outside ; altho' it must have a long Time, to work into the main Body of it. I have in *July*, and in the Beginning of *August*, taken some of the Ice into the Ship, and cut it square 2 Foot, and put it into the Boat, where the Sun shone on it with a very strong Reflex about it. And notwithstanding the Warmth of the Ship ; for we kept a good Fire, and all our Breathings, and Motions, it would not melt in 8 or 10 Days.

It was our Practice when we should be 2 Days together fast to a Piece of Ice, to set Marks on it, to see how it consum'd, but it yielded us small Hope of dissolving. We could not in that Time perceive any Diminution by the sinking of it, or otherwise. Nevertheless, I think that it is ruin'd with Storms, or consum'd with Heat some Years; or else the Bay would be choak'd up: But, I confess, these Secrets of Nature are past my Comprehension.

Being out of it, (but we yet saw it from off the Decks, to the Eastward) I order'd the Master to steer away N. and by E. keeping the Shoaling of the Western Shore.

The Eighteenth, at Noon, we were in Latitude 59. 30.

The 19th, we continu'd our Course betwixt the N. N. E. and the N. by E. and by Noon were in Lat. 61. 7, some 12 Leag. off the Shore. I order'd the Master, to shape his Course N. E. to look to that Place betwixt *Cary's Swans Nest*, and *Ne Ultra*.

The 20th, we were in Lat. 61. 45. This Day, we saw some few Seals about the Ship.

The 21st, the Water shoal'd; so that we concluded we were near Land; but about Noon the Wind came up at N. E. directly opposite. We looff'd as near it as we could, and as it larg'd, we came to stand E. and E. and by N.

The 22d, we fell with the Land to the Westward of *Cary's Swans Nest*; where we had 40 Fath. 3 Leag. off. We stood in within a League of the Shore, into 13 Fath. and seeing the Land to the Southward of us, we compass'd about it, it being *Cary's Swans Nest*, which is in Latitude 52. 00.

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All the 23d, we sail'd N. E. and for the most Part in Sight of Land.

The 24th, at Noon, by Judgment, we were in Lat. 69. 30. having sail'd a N. E. Course. All this Day was a very thick Fog, which about One o'Clock clear'd a little; so that I expected to see the Land. Some of our Men better sighted, spy'd it about 2 Leag. off. I knew it could be no other than *Nottingham* Island; tho' it were something contrary to the Expectation of our best Mariners. We stood into to make it. It was the N. End of it; and it bear off us, due E. I was soon assur'd of it; and I order'd the Master to shape his Course N. W. and by N. Both he and others were unwilling; but without much ado, submitted themselves: It was very foul thick Weather. The Reasons of my Resolution were these: The Time of the Year was far spent, and the Winter come upon us; therefore I would make the shortest Way, betwixt the Lands already discover'd. If I found an open Sea, I had my Desire, and then intended to proceed to the utmost of our Power; if I met with Land, I should then finish the Discovery; it being not above 15 Leag. from Land to Land, and not above 10 Leag. from *Nottingham* Island, to the Main of the N. Shore. We made what Sail we could; it blowing a very stiff Gale of Wind till 8 in the Evening; then it began to blow fiercely: And we took in our Top-Sails, and stood under our two Courses and Bonnets. At 9, it blew a violent Storm at S. S. E. so that we took in our Fore-Sail, and let her drive N. W. All Night it continu'd an extraordinary Storm; that we heav'd the Lead every Half Watch: But the Ship drove so fast, that she would be past the Lead, before there were 20 Fath.

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Fath. of Line out, all the Night being exceeding cold withal.

The 25th, the Storm continu'd, and so perplex'd us, that there were but few that could sleep or eat for 24 Hours. About 6, in the Afternoon, the Storm began to abate, yet there blew a fierce Gale of Wind betwixt the S. and S. W. We stood W. N. W. and made a N. W. Way, when suddenly the Sea become very smooth. We reason'd thereupon among ourselves, what might be the Cause of it. We all thought it, to be the Leeward Tide; nothing doubting, what we afterwards encounter'd. The Ship had a very quick Way in this smooth Water.

The 26th, by 2 in the Morning, we were suddenly got among the Ice; and it pleas'd God, that the Moon, at that Instant, gave us so much Light, that we could see a little about us. We would have stay'd the Ship, but it was so thick to Windward, and so near us, that we durst not. We then bore up in this unexpected Accident; and I verily believe did not escape striking, the Length of a Foot, against the Ice as hard as Rocks, two or three Times; the Ship now having Way after 12 Leag. a Watch. Then we stood close by a Wind to the Eastward, expecting Day, that we might see about us. We could from Top Mast Head see the Ice to the N. N. W. the N. W. and so round about by the S. to the E. and some there was to the Leeward of us. It was all flat sound Ice, and the Sea as smooth as a Well among it. This struck us all into a Dump. Whereupon I call'd a Consultation of my Associates; namely, *Arthur Price*, Master: *William Clements*, Lieutenant; *John Whittered*, Master's Mate; *Nathaniel Bilson*, Chirurgeon; and *John Palmer*, Boatswain; requiring them to

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advise and counsel me, how to prosecute our Business to Effect. These all went together, and reason'd among themselves; and then brought me their Opinions in Writing, under their own Hands:

Viz. Our Advice is, that you repair Homeward, from this present 26th, and that for these Reasons. First, that the Nights are long, and so extreme cold withal, that we can hardly handle our Sails and Rigging. Secondly, the Times are now subject to stormy and gusty Weather, as witness the present Season; it having continu'd a Storm ever since the 24th, and doth yet continue, no Weather to discover in. Thirdly, We doubt, whether *Hudson's* Streights be so clear of Ice, that it may be passable in convenient Time; Winter coming on apace, before we are frozen up; seeing the Ice lies here all over the Sea. Fourthly, We must have fair Weather to pass the Streight, for which we may stay a long Time; if we neglect the first Opportunity. Fifthly, our Ship is so very leaky, that in foul Weather we are forc'd to pump every Glas; which is great Labour: Moreover, we know her to be so sorely bruised with Rocks, and Blows of the Ice, that she is no more to be adventur'd among it, but in saving our Lives Homewards: Besides all this, our Men grow very weak and sickly, with extreme Labour. Sixthly, The Season of the Year is so far spent, that we can expect no other Weather, than we have had, both lately and at present; that is to say, Snow and Fog, freezing our Rigging, and making every Thing so slippery, that a Man can scarce stand: And all this, with the Wind Southerly; which if it should come to the Northward; then we are to expect far worse. Seventhly and lastly, That the

the Ice lies all in thick Rands and Ranges, in the very Way we should go, as you and all Men here may see. And therefore we conclude, as aforesaid, That there is no Possibility of proceeding further ; wherefore we here counsel you to return Homeward ; hoping that God will give us a favourable Passage, to return to our native Country ; if we take Time, and not tempt him too far, by our Wilfulness.

Indeed, most of these Difficulties were in View ; and I could not reasonably oppose them, nor any Reason could I give for proceeding further : Wherefore, with a sorrowful Heart, God knows, I consented, that the Helm should be born up, and a Course shap'd for *England* ; hoping, that His Majesty would graciously consider my Endeavours, and pardon my Return. And altho' we have not discover'd populous Kingdoms, and taken special Notice of their Magnificence, Power, Policy, &c. brought Samples Home of their Riches and Commodities ; pry'd into the Mysteries of their Trade and Traffick ; nor made any great Fight against the Enemies of God and our Nation ; yet, I hope, our Willingness in these desert Parts may be acceptable to our Readers. When we bore up Helm, we were in Lat. 65. 30. at least, N. W. and by N. from *Nottingham* Island. Some were of Opinion, that we were further to the Northward ; but by Reason it was by Judgment, I chuse to set down the lesser Distance.

The 27th, the Wind came up at N. W. with which we could not have gone on with our Design ; that Wind made no great swelling Sea. By Noon, we were athwart of Cape *Charles* ; so that we went in betwixt that Cape, and *Mill* Islands. The last Night it snow'd very much, and

was very cold ; so that all our Rigging and Sails were frozen, and all the Land cover'd with Snow. And here it will not be amiss to consider the Reasons of it: When I was upon *Charlton* Island, (our Wintering Place,) and in *June*, when the Snow was clearest off the Ground, I have in the Nights, and some of them following the hottest Days, observ'd, whether there fell any Dew or no ; but I could never perceive any, and from Moss and Sand, little I thought was to be expected. Now, of what was exhal'd from the snowy Ice, and cold Sea, could there probably be return'd but the like again. Generally, we continu'd on our Course, blinded with Fog and dirty Weather ; and that intermix'd with Snow and Frost among dispers'd Pieces of Ice ; many of them higher than our Top Mast Head.

With great Variety of Winds, we were also driven within 3 Leag. of both Shores ; so that the last of this Month, we were in the Narrow of the Streight, which is about 15 Leag. over ; the S. Shore was much pester'd with Ice.

September 1632. The 1st, and 2d, we endeavour'd to get on our Way. The 3d, in the Evening, as the Weather clear'd up ; we saw the S. End of the *Island of Resolution*.

These 3 Days and Nights had been extreme cold, with Fog and Frost ; insomuch, that our Men, in the Evening, could hardly take in our Top and Sprit Sails. We have sail'd thro' much nountainous Ice, far higher than the Top Mast Head. But this Day we sail'd by the highest that I ever yet saw ; which is incredible, indeed, to be related. Now as the Wind comes Easterly, we feel another Sea, out of the Ocean, and the Ship labours with another Motion, than
she

she hath done with any that ever we observ'd to come out of the Westward.

From the 3d to the 8th, we had Variety of Winds, and were got clear out of the Streights; but were now come into such a tumbling Sea, the Weather dirty and windy, and by Intervals calm again, that the Ship did so labour and roll, that we thought verily she would have roll'd her Masts by the Board. This made her so leaky, that we were forc'd to pump every Glas; yea, her Seams so open'd aloft, that we lay all wet in her.

This was the last Day we saw any Ice. The Wind now favouring us, we made all the Haste we could Homeward. By the Way, having endeavour'd, observ'd, and experimented some Things in my unfortunate Voyage, I perfected my said Observations; which being afterwards commanded to publish; I here most submissively offer unto the judicious Reader.

What hath been long ago fabled by some *Portuguese* that should have come this Way out of the South Sea, the meer Shadows of whose mistaken Relations have come to us, I leave to be confuted by their own Vanity. These Hopes have stirr'd up, from Time to Time, the more active Spirits of this our Kingdom, to research that meerly imagin'd Passage. For my own Part, I give no Credit to them at all, and as little to the vicious and abusive Wits of later *Portuguese* and *Spaniards*, who never speak of any Difficulties, as shoal Water, Ice, nor Sight of Land; but as if they had been brought Home in a Dream or Engine. And indeed their Discourses are found absurd; and the Maps, by which some of them have practis'd to deceive the World, meer Falsties; making Sea where
there

there is known to be main Land, and Land where is nothing but Sea.

Most certain it is, that by the Industry of our own Nation, those Northern Parts of *America* have been discover'd, to the Latitude of 80 Degrees, and upwards. And it hath been so curiously done, the Labours of several Men being join'd together, that the main Land hath been both seen and search'd, and they have brought this suppos'd Passage to this Pass, that it must be to the N. of 66 Degrees of Latitude. A cold Climate, pester'd with Ice, and other Inconveniencies, and where the *Spaniards* Dispositions, and their weak Ships, can hardly endure it. And withal, it is known, that the Entrance of *Hudson's* Streights is but 15 Leag. broad; in the Middle not so much. And betwixt *Salisbury* Island, and the Main, it is but 8 Leag. Then proceeding to the Northward, towards the foremention'd Latitude, it is but 15 Leagues from Main to Main. This in Length, is about 140 Leag. as will more plainly appear by the Map, and infinitely pester'd with Ice, until *August*, and some Years not passable then, and I believe the Straight is never clear of Ice entirely.

Now it is most probable there is no Passage, for the following Reasons:

First, There is a constant Tide, Flood and Ebb, setting into *Hudson's* Streights; the Flood still coming from the Eastward; which as it proceeds, correspondent to the Distance, it alters his Time of full Sea. This also entering into Bays, and broken Ground, it becomes distracted, and reverses with Half Tides.

Secondly, Here are no small Fish, as Cod, &c. and very few great Ones, which are rarely to be seen. Nor are there any Bones of Whales, Sea-Horses,

Horfes, or other great Fish, to be found on the Shore, nor any Drift Wood.

Thirdly, We found the Ice in the Lat. of 65. 30. to be lying all over the Sea in Rands ; and I am most certain, that the Shoals and Shoal Bays are the Mother of it. Had there been any Ocean beyond it would have been broke all to Pieces ; for so we found it coming thro' the Streight into the Sea, to the Eastward.

Fourthly, The Ice seeks his Way to the Eastward, and so drives out at *Hudson's Streight* ; which I have often observ'd upon the *Island of Resolution*, and driving among the Ice in the Streight.

Admit there were a Passage, yet it is known, that is narrow, for 140 Leag. and infinitely pester'd with Ice, as every one has found, who has gone that Way. Comparing therefore some Observations taken at *Bantam*, *Gulolo*, and *Firando* in *Japan* ; and the Distance betwixt *Japan* and the Western Part of *California* ; with the Observations taken at *Charleton Island*, referring all to the Meridian of *London*, and then the Distance betwixt the Meridians of *Cape Charles*, and the Western Part of *California*, will be found to be about 500 Leag. in Lat. 66. 00. where yet the Meridians incline very much together.

To this may be added, that near about *Cape Charles*, the Variation is 29 Degrees to the W. which is a probable Argument, that there is much Land to the Westward ; and that this Streight must be very long, and that you have no Time to pass it but in *August* and *September*, when the Nights are so long, and the Weather so cold, that it will not be durable.

Add to this : That neither can any great Ships, which are fit for carrying of Merchandize, endure

ture the Ice, and other Inconveniencies, without extraordinary Danger.

Moreover, 1000 Leag. is sooner sail'd to the Southward, and about the *Cape de Bona Speranza*, where the Winds are constant, and that with Safety, than 100 in these Seas, where you must daily run the Hazard of losing Ship and Lives. Put hereunto, that Comfort for the Sick, or Refreshment for your Men, here is none to be had in these Quarters.

Towards the latter End of *August*, and in *September*, the Weather grows tempestuous, and the Winds incline to be Westerly, that there will be but small Hope of performing your Voyage this Way.

But let us, by Way of Imagination only, enlarge this Streight, in this Latitude, and free it of Ice, yet what Advantage, in speedy Performance, will be got by this Passage, if the Winds be withal consider'd? To *Japan*, *China*, and the Northern Parts of *Asia*, it may be the nearer Cut; but in Navigation, the farthest Way about is well known, in fewer Days to be perform'd, yea, with lesser Pains, and more Safety of Ship and Goods.

Again: To the *East Indies*, and other Parts, where we have the greatest Commerce and Imployment of Shipping; the other Way is as near. What Benefit of Trade might have been obtain'd in those Northern Parts of *Asia*, I will not presume to speak of; holding that there is a great Difference betwixt those Parts, and the Northern Parts of *America*; whereas, I am sure, that there is none in any Place where I have been all this Voyage.

The

The 22d of *October*, we arriv'd in the Road of *Bristol*; having been hinder'd and cross'd with much contrary and tempestuous Winds and Weather. The Ship being brought into Harbour, and hal'd on dry Ground to look to her, it was found; that all her Cut-Water and Stern were torn and beaten away, together with 14 Foot of her Keel; much of her Sheathing cut away, her Bows broken and bruis'd, and much Timber crack'd aboard, and under the Starboard Bulge, a sharp Rock had cut thro' the Sheathing, the Plank, and an Inch and an Half into a Timber that it met withal. Many other Defects there were besides, so that it was miraculous how this Vessel could bring us Home again. Being all arriv'd, we went to Church, and gave God Thanks for his Preservation of us amidst so many Dangers. I very well know, that what I have here hastily written, will never discourage any noble Spirit, that is minded to bring this so long tryed Action to absolute Effect. And it is likely withal, that there be some, who have a better Understanding, and a surer Way of prosecuting of it, than myself have. To whose Designs, I wish a happy Success, and if they do but make a Review of what hath been done, and give more certain Celestial Observations, Hydrographical Descriptions, or exacter Practice in Navigation; it will be a most commendable Labour. For altho' I have spent some Years of my ripest Age, in procuring Intelligence from foreign Nations, and have travell'd with divers honourable and learned Personages of this Kingdom, for their Instructions; have bought up whatever I could find in Print, or Manuscript, and what Maps or Papers soever conducive to this Business, that possibly

sibly I could procure ; and have serv'd voluntary besides ; and spent some Time in rendering a Relation, since my coming Home, and expended withal of my own Monies, in my aforesaid Endeavours, and in furnishing of extraordinary Necessaries, above Five Hundred Pounds in Ready Money ; yet I repent not, but take a great Deal of Comfort and Joy, that I am able to give an Account, in some reasonable Way, of those Parts of the World, which heretofore I was not so well satisfy'd in.





APPENDIX.

*The Names of the several Instruments,
I provided and bought for this Voyage.*



Quadrant of old season'd Pear-Tree Wood, artificially made ; and with all Care possible divided with Diagonals, even to Minutes. It was of 4 Foot Semidiameter at least.

An Equilateral Triangle of like Wood, whose Radius was 5 Foot at least ; and divided out of *Petiscus's* Table of Tangents.

A Quadrant of 2 Foot Semidiameter of like Wood ; and with like Care projected.

The Sights, Centers, and every other Part of them examin'd, and try'd with convenient Compasses,

passes, to see if they had been wrong'd or alter'd. And this continually, before they were made use of.

Staves for taking Altitudes and Distances in the Heavens.

A Staff of 7 Foot long, whose Transom was 4 Foot, divided into equal Parts, by Way of Diagonals, that all the Figures in a Radius of 10,000, might be taken out, actually.

Another of six Foot, near as convenient, and in that Manner to be used.

Master Gunter's Cross-Staff.

Three *Jacob's* Staves, projected after a new Manner; and truly divided out of the Table of Tangents.

Two of Mr. *Davis's* Back-staves, with like Care made and divided.

Of Horizontal Instruments.

Two Semicircles, 2 Foot Semidiameter, of season'd Pear-Tree Wood, and divided with Diagonals, to all possible Exactness.

Six Meridian Compasses, ingeniously made; besides some Dozen of others more common.

Four Needles in square Boxes, of six Inches Diameter; and other six, of three Inches Diameter.

Moreover, four special Needles, (which my good Friends Master *Allen* and Master *Mar* gave me) of six Inches Diameter, and touch'd curiously, with the best Loadstone in *England*.

A Loadstone to refresh any of these, if Occasion were, whose Poles were mark'd, for Fear of mistaking.

A Watch Clock, of six Inches Diameter, and another lesser Watch.

A Table every Day calculated, correspondent to the Latitude, according to Master *Gunter's* Directions in his Book; the better to keep our Time and Compass, to judge of our Course.

A Chest full of the best and choicest Mathematical Books, that could be got for Money in *England*; as likewise Master *Hackluyt*, and Master *Purchas*; and other Books of Journals and Histories.

Study Instruments of all Sorts.

I caus'd many small Glassees to be made, whose Part of Time I knew to a most insensible Thing, and so divided and appropriated the Log-line to them; making use of *Wilbrordus's* and *Snellius's* Numbers of Feet answering to a Degree, and approv'd of by Master *Gunter*.

I made a Meridian-line of 120 Yards long, with 6 Plumb-lines hanging in it; some of them being above 30 Foot high, and the Weights hung in a Hole in the Ground to avoid Wind. And this to take the Sun or Moon's coming to the Meridian. This Line we verified, by setting it by the Pole itself, and by many other Ways.

Two Pair of curious Globes, made purposefully; the Workman being earnestly affected to this Voyage.

This was the Manner that we took the Variation of the Compass, and that as often as conveniently we could, but divers of the Tables, by the Negligence of my Boy, are lost; but these, I hope, may suffice to give Satisfaction of our Care in Navigation. *July 13. 1631.*

These 13 Azimuths, with the Altitude and Declination, were taken upon a great Piece of

K

Ice,

Ice, with 3 Needles together; then the Declination was not equated, the last three set forth by themselves proves the rest; *viz.* the Azimuth of West, with his Variation; the Azimuth at due West; and the Variation by the Altitude and Azimuth at due West.

These were taken 20 Leag. to the Eastward of *Salisbury* Island; and 2 Quadrants, one of 4, another of 2 Foot Semidiameter; a Semicircle 2 Foot Semidiam. Lat. 63 : 01. Decl. 20 : 14.

<i>Sun's Alt.</i>	<i>Azim.</i>	<i>F.</i>	<i>T. Azim.</i>	<i>F.</i>	<i>Variation.</i>
39 42	77 50	S	50 11	S	27 39
35 33	90 00		62 12	S	27 48
34 24	76 30	N	65 07	S	27 23
31 24	80 18	N	72 12	S	27 30
30 57	78 53	N	73 21	S	27 46
29 00	74 50	N	77 28	S	27 42
27 10	71 00	N	98 42	N	27 42
25 52	68 28	N	96 02	N	27 34
25 00	66 40	N	94 16	N	27 36
24 00	64 50	N	92 16	N	27 26
23 30	64 00	N	91 18	N	27 44
22 50	27 35	N	89 58	N	27 33
22 30	61 24	N	89 18	N	27 44

The mean Variation is 27 36

The Variation of the Altitude and
Azimuth of West. 27 33

The Variation of the Azimuth of
West. 27 48

The Variation by Azimuth at due
West. 27 35

The Mean of these three is 27 38

July

The Appendix.

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July 22. 1631. These three Azimuths and Altitudes were taken upon a Piece of Ice, the Magnetical Azimuths by the Sun's Shade in the Water, the Air thick of Fog, that the Sun gave no perfect Shade otherways, 10 Leag. West from *Mansfield* Island. Lat. 60. 33. Decl. 18. 25.

Sun's Alt.	Azim.	F.	T. Azim.	F.	Variation.
34 06	90 00	S	64 34	S	25 26
31 34	84 48	N	70 08	S	25 04
18 25	71 35	N	82 54	N	25 21

The Mean is 25 17

July 24. 1631. These 11 Azimuths were taken upon a Piece of Ice about the Middle of the great Bay; some of them by the Shade, and some by the Sight of the Sun in the Water, the Weather being thick of Fog. Latitude 59. 20. Decl. 17. 40.

Sun's Alt.	Azim.	F.	T. Azim.	F.	Variation.
36 44	82 50	S	59 04	S	22 46
35 44	83 40	S	61 18	S	22 22
33 02	90 00		67 14	S	22 46
29 49	84 25	N	73 40	S	21 55
27 25	79 50	N	75 10	S	22 00
26 27	78 10	N	87 14	S	22 14
23 48	72 35	N	84 38	S	22 47
21 16	68 47	N	88 38	S	22 35
20 40	67 30	N	90 00		22 30
20 10	67 00	N	89 00	N	22 12
19 34	66 00	N	88 10	N	22 10

The Mean is 22 : 23 21

July 31. 1631. These several Azimuths were taken upon a Piece of Ice, 50 Leag. off the Western Shore: Lat. 58. 43. 43. Decl. 15. 43. 43.

<i>Sun's Alt.</i>	<i>Azim.</i>	<i>F.</i>	<i>T. Azim.</i>	<i>F.</i>	<i>Variation.</i>
24 00	76 26	N	99 20	N	22 54
23 35	76 00	N	98 38	N	22 38
22 50	75 00	N	97 18	N	22 18
22 05	73 40	N	96 04	N	22 24
20 32	71 20	N	93 32	N	22 12
18 40	67 55	N	90 24	N	22 29
18 30	67 30	N	90 02	N	22 32

The Mean is 22 : 29 : 34.

August 1. 1631. These several Azimuths were taken upon a Piece of Ice, about 40 Leag. off the Western Shore: Lat. 58. 45. Decl. 15. 25.

<i>Sun's Alt.</i>	<i>Azim.</i>	<i>F.</i>	<i>T. Azim.</i>	<i>F.</i>	<i>Variat.</i>
26 34	83 05	N	104 36	N	21 31
25 26	81 25	N	103 06	N	21 41
24 26	78 38	N	100 42	N	22 04
22 30	75 16	N	97 22	N	22 06
21 31	73 50	N	95 42	N	21 52
20 10	71 27	N	93 24	N	21 57
18 42	68 40	N	90 58	N	22 18
18 07	67 25	N	89 56	N	22 31

The Mean is 22 ; 00.

August

Aug. 5. 1631. These Azimuths were taken upon a Piece of Ice, and calculated by all the Figures of the Canon about 40 Leag. off the Western Shore : Lat. 58. 37. Decl. 14. 12.

<i>Sun's Alt.</i>	<i>Azim.</i>	<i>F.</i>	<i>T. Azim.</i>	<i>F.</i>	<i>Variat.</i>
23 14	79 12	N	101 02	N	21 50
22 11	76 40	N	99 12	N	22 32
21 11	75 11	N	97 28	N	22 17
20 00	73 02	N	95 48	N	22 46
18 59	71 24	N	93 47	N	22 23
17 15	68 35	N	90 53	N	22 18
16 42	67 28	N	90 00		22 32
15 39	65 32	N	88 18	N	22 46

The Mean is 22 : 25 : 30.

These Observations were taken the 10th of November 1631. the Lat. 52. 03. the Difference may be conceiv'd to grow by Reason of the Sun's low Altitude and Refraction. The others about the Summer Solstice, where Difference of Meridians is avoided, and are more exact.

<i>Sun's Alt.</i>	<i>Azimuth.</i>	<i>T. Azim.</i>	<i>Variat.W.</i>
G. M.	G. M.	G. M.	G. M.
14 25	42 25	26 11	16 14
14 00	45 25	27 30	17 55
13 15	47 25	29 54	17 31
12 18	48 10	32 33	15 37
12 03	49 20	33 16	16 04
11 41	51 07	34 15	16 52
10 57	53 25	36 04	17 21
9 42	55 25	38 58	16 27
9 15	57 45	40 00	17 14
8 50	58 37	40 52	17 45

The Mean is 16 : 57 West.



*Master Gellibrand's Observations
touching Longitude.*



LATITUDE and Longitude are two primary Affections of the Earth, by the Help of these two doth the Geographer strive to represent the the Parts of the Earth that they may keep Symmetry and Harmony with the Whole. Latitude then is an Arch of the Meridian, comprehended between the Æquator and a Parallel; but Longitude is an Arch of the Æquator, intercepted by the prime Meridian, and the Meridian of a Place, the Difference of Longitudes being the Difference of two Meridians. The Measure of the former is the Meridian, the Æquator of this latter. For the exact Settling of Latitudes we have many and absolute Helps, so that the Error, if any happen, ought to be imputed to the imperfect Handling of the Artist. But the Longitude of a Meridian is that which hath, and still wearieth, the greatest Masters of Geography: Nevertheless, hath not the wise Creator left Man unfurnish'd of many excellent Helps to attain his Desire: For, besides Eclipses, especially of the Moon, (whose Leisure we must often wait, and perhaps go without, if the Heavens be not propitious to us) we have the Concourse of quick pac'd inferior

rior Planets, with superior slow ones, or their Appulses with some fix'd Star of known Place, or else some other Artifice deriv'd from their Motions and Positions. As for the Magnetical Needle to argue a Longitude from its Variation, is altogether without Ground. And though well furnish'd Seamen are able by their dead Reckonings, as they term them, to determine the Difference of Meridians somewhat near; yet by Reason of the unknown Quantity of a Degree in a given Measure, which is the Rule of the Ship's Way, Varieties of adverse Winds, different Sets of Tides, and other involv'd Incumbrances, they come often wide of the Mark they aim at. The best Way yet known to the World, is that which is deduc'd from the Celestial Appearances, which being perform'd by judicious Artists, may, in a short Time, rectify our Geographical and Hydrographical Charts hitherto in most Places foully distorted. It is my Intent here, to give an Instance from two several Observations drawn from the Celestial Bodies, by the Author of this Discourse, in his Discovery for the N.W. at the Bottom of the Bay, being his Wintering Place, and call'd by the Name of *Charlton*, which for Judgment, Circumspection and Exactness may compare with most; the first from the Eclipse of the Moon; the second from the Moon's Mediation of Heaven, or her coming to the Plane of his Meridian of *Charlton*.

The Captain then mindful of the Lunar Eclipse which was to happen, *Octob. 29. 1631.* was waiting on the Moon with his Instruments, but by Reason of the Interposition of the Clouds, could make no Observation on the Beginning of her Obscuration, but at her Emerision or Total Re-

covery of Light, the Heavens being more serene, he took the Altitude of the superior Limb of the Moon 29 Gr. 11 M. the Lat. of *Charlton* being 52 Gr. 3 Min.

At that very Time, myself with some Friends found the exact Time of the Moon's Emerfion at *London*, in *Gresham* College (by a Quadrant of 6 Foot Radius, actually cut to each Minute of the Quadrant) to be *Octob.* 29. 13 H. 7 Min. 28 Sec. or *Octob.* the 30th Day at One of the Clock, seven Minutes, and about a Half in the Morning.

Now, because the Tables of the Celestial Motions, lately publish'd by that most learned and industrious *Lansberg*, do much amuse the World with that lofty Title of Perpetuity, it will not be amifs to enquire after the Time of the Captain's Observation from them, that so by comparing the one with the other, we may obtain the Difference of Meridians, which is the Matter now fought after.

The Middle Motions of the Luminaries answerable to the equal Time of the Emerfion of the Moon, are these which follow :

The Middle Motion of the Sun, 3 Sex. 47 Gr. 39 Min. 26 Sec.

The Middle Motion of the Center of the Sun, 3 Sex. 15 Gr. 49 Min. 58 Sec.

The Middle Motion of the Apogeum of the Sun, 1 Sex. 35 Gr. 45 Min. 44 Sec.

The Middle Motion of the Longitude of the Moon, 2 Sex. 59 Gr. 29 Min. 1 Sec.

The Middle Motion of the Anomaly of the Moon, 5 Gr. 11 Min. 30 Sec.

The Middle Motion of the Latitude of the Moon, 4 Sex. 32 Gr. 8 Min. 15 Sec.

The

The Prosthaphæresis of the Æquinox, 12 Minutes, 30 Sec.

Being thus furnish'd with these Middle Motions, we are next to enquire for the true Places of the Luminaries, and their Concomitants, as their Right Ascensions, the Declination, Latitude, Semidiameter, Parallax, and Refraction of the Moon, that so the true Altitude of the Moon's Center, and consequently the Time of the Emerfion may be had at *Charlton*.

For the Sun's true Place.

	<i>Sex. Gr. M. S.</i>
The Middle Motion of the Sun's Center.	3 15 49 58
The Prosthaphæresis of the Center added.	0 1 37 0
The Proportional Scruples, 1.	
The Middle Motion of the Sun's Apogæum	1 35 45 44
The true Motion of the Apogæum substracted	1 37 22 44
The Middle Motion of the Sun is	3 47 39 26
The Anomaly of the Sun's Orb	2 10 16 42
The Prosthaphæresis of the Sun's Orb	0 1 32 43
The Excess to be added	0 0 0 20
The absolute Prosthaphæresis of the Sun's Orb substracted	0 1 33 3
The Middle Motion of the Sun from the true Æquinox	3 47 51 56
The true Motion of the Sun from the true Æquinox	3 46 18 53
Therefore the Sun's true Place was in ♈	0 16 18 53
And his Right Ascension	2 23 49 53
	<i>For</i>

For the Moon's true Place.

	<i>Sex. Gr. M. S.</i>
The Anomaly of the Moon's Center	5 59 18 2
The Prosthaphæresis of the Moon's Center	0 0 5 36
The Proportional Scruples 0.	
The Anomaly of the Moon's Orb	0 5 11 30
The Equated Anomaly of the Moon's Orb	0 5 5 54
The Prosthaphæresis of the Moon's Orb subtracted	0 0 24 4
The Middle Motion of the Longitude of the Moon from the Sun	2 59 39 1
The true Motion of the Moon's Long. from the Sun	2 59 14 57
The Middle Motion of the Sun from the true Æquinox	3 47 51 56
The true Motion of the Moon from the true Æquinox	0 47 6 53
Therefore the Moon's true Place was in ☾	0 17 6 53

For the Moon's Latitude.

The Middle Motion of the Moon's Latitude	4 32 8 15
The Moon's absolute Prosthaphæresis of her Orb subtracted	0 0 24 4
The Moon's true Motion of Latitude	4 31 44 11
The Moon's Northern Lat. was	0 0 9 5
And her Reductive Scruples subtracted	0 0 0 26
	But

	Sex. Gr. M. S.
But the Moon's true Motion in her proper Orb was	0 17 6 53
Therefore the Moon's true Place reduc'd to the Ecliptick ☿	17 6 27
And because the North Latitude of the Moon was	0 9 5
Thereforefore will her Right Af- cension be	44 35 10
And her Declination	17 7 49
And because we have the Distance of the Moon from the Earth in Semidiameters of the Earth	64 15
Therefore shall the Moon's appa- rent Semidiameter be	0 15
And her Parallax of Altitude	0 47 0
Now because the Altitude of the Limb of the Moon was found by Observation to be	29 11
If we shall substract her Semidia- meter	0 15
And the Refraction	0 2
We have the apparent Altitude of the Moon's Center	28 54
To this if we add the Parallax of Altitude	0 47
We shall have the true Altitude of the Moon's Center	29 41

Having thus the Latitude of the Place ;
the Moon's true Altitude with her Declination,
by the Resolution of a Spherical Triangle, ac-
cording to the Eleventh Problem, Lib. II. Part
II. of our *British Trigonometry*, we have the Di-
stance of the Moon from the Meridian, 63 26

And

And by comparing this Arch with the Difference of the Ascensions of the Luminaries, the Time of the Moon's total Recovery of her Light at *Charlton* will be 7 Hours, 49 min. 28 sec.

Which substract from the Time of the Emer-sion at *London*, 13 h. 7 min. 28 sec.

The Difference of Meridians in Respect of Time will be 5 h. 18 min. 0 sec.

So that *Charlton* is remov'd from *London* West-wards, 79 deg. 30 min.

This may likewise be confirm'd by a second different Observation made at the Instant of the Moon's Culmination or Mediation of Heaven, at which Time the Altitude of the brightest Star in the Asterism of the Northern Crown, (being of the second Magnitude) was found to be 33 deg. 27 min. Easterly, June 23. 1632.

It may be problematically deliver'd after this Manner.

Having the Latitude of a Place, with the Altitude of a known fix'd Star, at the Moment of the Moment's Culmination, to find the Longitude.

This fix'd Star is of known Longitude and Latitude; therefore was his Declination 27 : 59, and Right Ascension 229 : 46. Now by the Resolution of a Spherical Triangle of three known Sides we have the Distance of this Star from the Meridian, and by Consequence the Right Ascension of the Moon, whence we conclude her Culmination to be with the 28 deg. 10 min. of vs, but the Moon's true Place was much less. Here note, that the Scrupulosity of Time is unknown, and therefore we cannot argue the Moon's true Place from thence, tho' I grant it might be evinced, for that were to beg the Question, and to know that first, which we look after.

In

In the next Place, we are to enquire, with what Point of the Ecliptick, the Moon culminated with us here at *London*, that so from the Difference of her Places, of the like Affection, we may deduce the Difference of Meridians.

Observation on the Moon's Culmination here at *London*, we made none, therefore must we have Recourse to the aforesaid Tables of *Lansberg*, and from thence calculate the same. Now because the Moon was not far remov'd from the Sun's opposite Point. It will not be amiss to enquire first the Moon's Place at Midnight.

	<i>Sex. Gr. M. S.</i>
The Sun's opposite Place at Midnight in $\vee$ s	0 11 18 15
The Moon's true Place at Midnight reduc'd to the Ecliptick was in $\vee$ s	0 23 33 18
The South Latitude of the Moon was	0 4 56 38
Therefore the Difference of Ascensions will be	14 6 0
The Diurnal Motion of the Moon	14 24 0
Therefore the Moon's proper Motion answerable to the Difference of Ascensions is	0 33 50
Which added to the Moon's true Place at Midnight	23 33 18
Gives us the Moon's true Place reduc'd to the Ecliptick at her Culmination at <i>London</i>	24 7 8

Now because the Sun's Southern Latitude was 4 : 56 : 38. the Arch therefore of the Ecliptick comprehended between the Moon's true Place and the culminating Point of the Ecliptick will trigono-

trigonometrically be found to be 54 min. 38 sec. which added to the Sun's true Place before found gives us the culminating Point of the Ecliptick, 25 deg. 1 min. 46 sec. which is less than that found at *Charlton*: The Difference being 3 deg. 8 min. 24 sec. therefore is the Place of Observation Westerly of *London*. Having therefore the Sun's Diurnal Motion, and the Difference of the culminating Points, we conclude the Meridian of *Charlton* to be distant from this of *London*, 5 h. 14 min. of Time, or 78 : 30 of the Equator.

The Difference between that of the Eclipse, and this latter Observation is only four Minutes of Time, or one Degree, a Difference easily pardon'd, especially if we shall compare the same with some other Places, yea even such as border nearly on each other. To give an Instance of two eminent Places which lie in the Heart of *Europe*, *Rome* and *Norimberg*; Their Difference of Long. *Regiomontanus* makes 36; *Werner* 32; *Appian* 34; *Mæstlin* and *Origan* 33; *Stofler* 18; *Maginus* 26; *Schoner* 12; *Mercator* and *Hondius* as much; *Stadius* 13; *Jansonius* 10; *Longomontanus* 16; *Lansberg* 10; *Kepler* by two Observations on two Lunar Eclipses, but four Minutes of Time.

This Variety among these great Artists, will I hope pardon us this Difference of four Min. and be a Means to encourage our *English* Seamen and others, to make such or the like Observations in Foreign Parts, as the Heavens shall offer unto them.

H. GELLIBRAND.

F I N I S.



